

52.99

KV-27TS20
RM-757

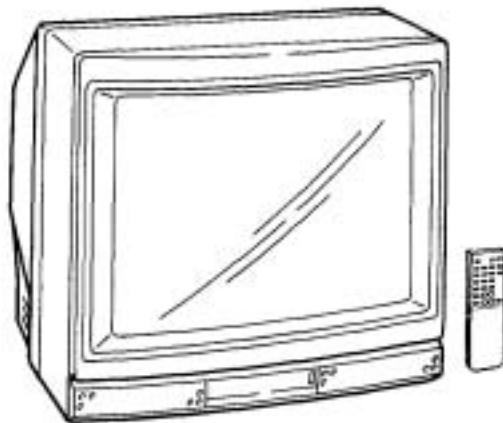
SERVICE MANUAL

US Model

Chassis No. SCC-A05P-A

Canadian Model

Chassis No. SCC-A50G-A



P-3A CHASSIS

Note: The service manual for RM-757 has been issued separately.

MODELS OF THE SAME SERIES	
KV-27TW70	

SPECIFICATIONS

Television system	American TV standards
Channel coverage	VHF: 2-13 UHF: 14-69 Cable TV: 1-125
Picture tube	Microblack Trinitron tube 27-inch picture measured diagonally 28-inch picture tube measured diagonally
Input	VIDEO INPUT (phono jacks) Video: 1 Vp-p, 75-ohms unbalanced, sync negative Audio: 500 mVrms (100% modulation) Impedance: 47 kilohms
Output	AUDIO OUTPUT (VARIABLE) (phono jacks) More than 408 mVrms at the maximum volume setting (variable) (100% modulation) Impedance: 10 kilohms
Power requirements	120 V AC, 60 Hz
Power consumption	160W (max.) 5W (in standby condition)
Dimensions	Approx. 672 x 650 x 524.5 mm (w/h/d)
Weight	49Kg
Sound output	3W x 3W (music power)

Accessories supplied

Remote Commander RM-757
with 2 size AA batteries

Antenna connector .

Optional accessories

UIV mixer EAC-66
Connecting cord VMC-810S/820S
RK-C74/150

Design and specifications subject to change without notice.

TRINITRON® COLOR TV
SONY®



52.99

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WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUSSION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ÊTRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDE À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSERES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDICUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SAFETY CHECK-OUT (US MODEL ONLY)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

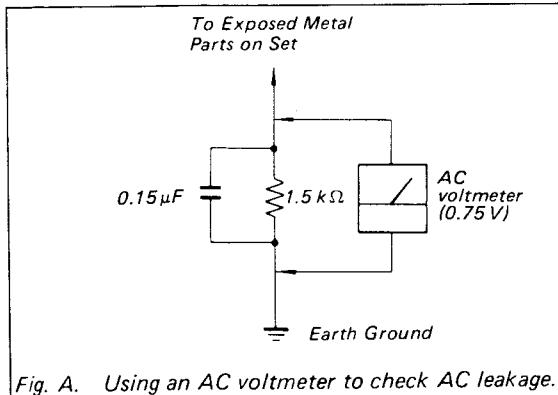


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamper). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

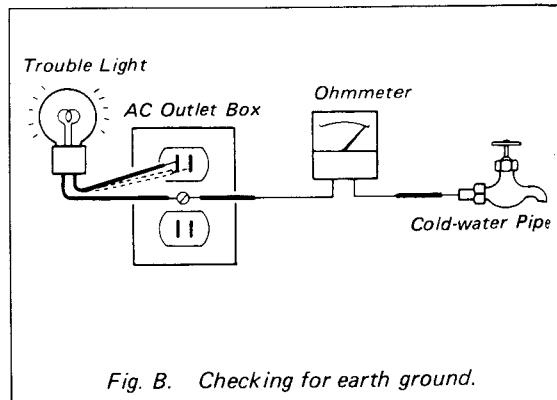
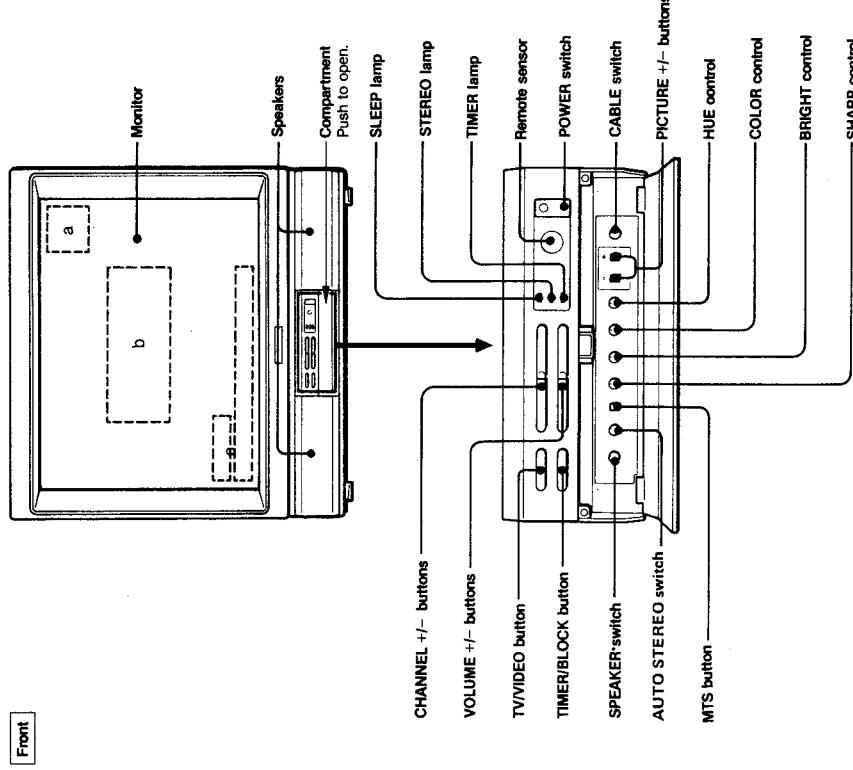


Fig. B. Checking for earth ground.

SECTION 1 GENERAL

1-1. LOCATION OF CONTROLS

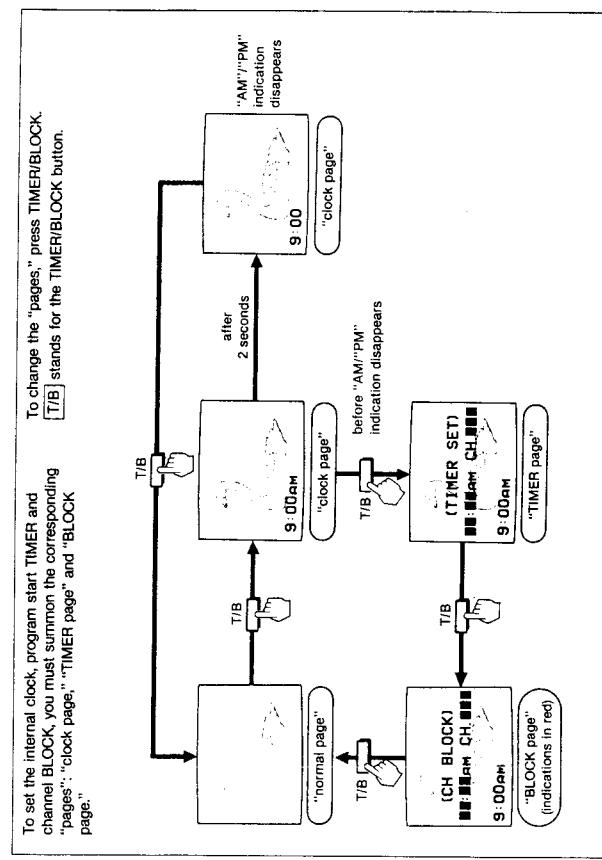


1-2. TIMER/BLOCK

Available functions

Available functions	
Internal clock	Once the internal clock is set, the current time will appear on the screen.
Program start TIMER	Makes a program of your choice appear on the screen automatically at the desired time.
Channel BLOCK	Blocks a channel from appearing on the screen for 12 hours. Use channel BLOCK to prevent children from watching undesirable programs.

The buttons used for the above functions are located on the Remote Commander.



- All settings will be erased from the unit's memory if the unit is unplugged or if a power failure occurs.
- The TIMER and BLOCK will operate only if the clock is set correctly.
- If the TIMER and BLOCK are set for overlapping times on the same channel, the blocked channel will appear on the screen at the time set on the TIMER.

On-screen displays

- a) Channel numbers
- MTS mode indication
- "MULTING", "SLEEP", or "VIDEO" mode indication
- b) "AUTO PROGRAM", "TIMER" or "TIMER BLOCK" indication
- c) Bar display for volume or picture adjustment
 - Current time for Timer Block

How to Set the Internal Clock

Example: To set the clock to 8:05 PM

- 1 Press TIMER/BLOCK once to change from "normal page" to "clock page".

Make sure that the clock has been set correctly before setting the channel BLOCK.

Example: To set the BLOCK for a program which begins at 9:30 AM on channel 8

- 1 Press TIMER/BLOCK three times to change from "normal page" to "BLOCK page."
- 2 Press 0, 8, 0, 5, AM/PM (0 necessary).

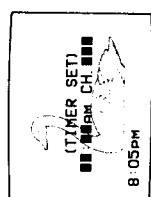
Make sure that the clock has been set correctly before setting the program start TIMER.

Example: To set the TIMER for a program which begins at 10:30 PM on channel 12

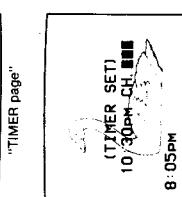
- 1 Press TIMER/BLOCK once to change from "normal page" to "clock page".
- 2 Press 0, 5, PM (0 necessary).

The TIMER lamp will light up to indicate that the TIMER has been set. If you have made a mistake, press CLEAR and return to step 3.

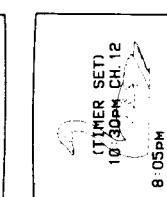
At the preset time, the selected channel will appear on the screen and the TIMER lamp will go out. The TIMER will operate whether you are watching a TV program or a VCR playback, or even if you have turned off the TV.



"clock page"



"clock page"



"clock page"

- 3 Press 1, 0, 3, 0, AM/PM, ENTER. Numbers will "wink" to indicate that the time has been set.

Press 8, ENTER (0 not necessary). Numbers will "wink" to indicate that the channel has been set.

The BLOCK has now been set. If you have made a mistake, press CLEAR and return to step 2.

At the preset time, the picture of the selected channel will be blocked from view and the sound will be muted. A red "BLOCKED" indication will appear on the screen while the channel is blocked. Normal reception will be resumed after 12 hours.

- 3 If you have performed the operation correctly, press ENTER. The numbers will "wink" to indicate that the clock has been set. (The 0 in front will disappear)
- 4 Press 1, 2, ENTER (0 not necessary). Numbers will "wink" to indicate that the channel has been set.

The TIMER operates only once, but the time and the channel will remain in the unit's memory.

If you want to preset the same channel at the same time for a future date, press TIMER OFF/REPEAT. The TIMER lamp will light up to indicate that the TIMER has been reactivated.

To return to normal reception while the channel is blocked, return "BLOCK page" and press CLEAR.

The BLOCK setting blocks a specified channel for the same 12-hour period everyday.

To clear BLOCK setting, summon "BLOCK page" and press CLEAR.

To reset, clear the setting and follow the steps above from step 2.

To return to normal reception while the channel is blocked, return "BLOCK page" and press CLEAR.

The BLOCK setting blocks a specified channel for the same 12-hour period everyday.

To clear BLOCK setting, summon "BLOCK page" and press CLEAR.

To reset, clear the setting and follow the steps from step 3.

How to Set the Channel BLOCK

Example: To set the clock to 8:05 PM

Make sure that the clock has been set correctly before setting the channel BLOCK.

Example: To set the BLOCK for a program which begins at 9:30 AM on channel 8

- 1 Press TIMER/BLOCK three times to change from "normal page" to "BLOCK page".
- 2 Press 0, 8, 0, 5, AM/PM (0 necessary).

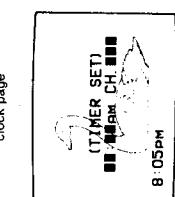
Make sure that the clock has been set correctly before setting the program start TIMER.

Example: To set the TIMER for a program which begins at 10:30 PM on channel 12

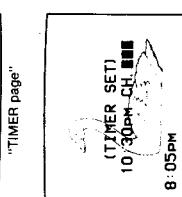
- 1 Press TIMER/BLOCK once to change from "normal page" to "clock page".
- 2 Press 0, 5, PM (0 necessary).

The TIMER lamp will light up to indicate that the TIMER has been set. If you have made a mistake, press CLEAR and return to step 3.

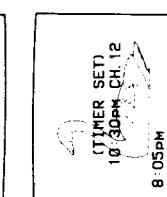
At the preset time, the selected channel will appear on the screen and the TIMER lamp will go out. The TIMER will operate whether you are watching a TV program or a VCR playback, or even if you have turned off the TV.



"clock page"



"clock page"



"clock page"

- 3 Press 1, 0, 3, 0, AM/PM, ENTER. Numbers will "wink" to indicate that the time has been set.

At the preset time, the picture of the selected channel will be blocked from view and the sound will be muted. A red "BLOCKED" indication will appear on the screen while the channel is blocked. Normal reception will be resumed after 12 hours.

- 4 Press 1, 2, ENTER (0 not necessary). Numbers will "wink" to indicate that the channel has been set.

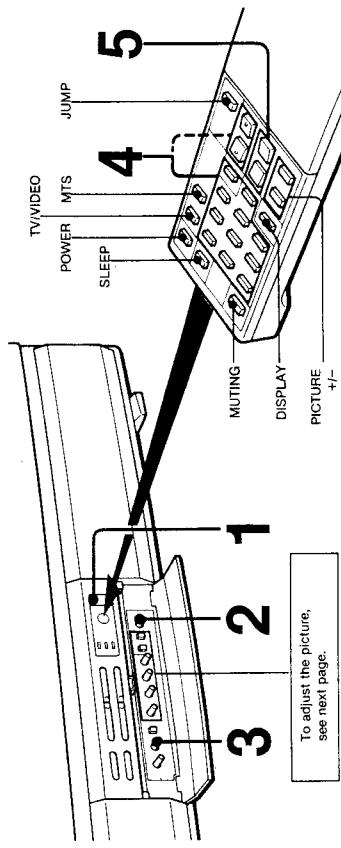
If you want to deactivate the TIMER, press TIMER OFF/REPEAT again so that the TIMER lamp goes out.

If you want to preset the same channel at the same time for a 12-hour period everyday, press TIMER OFF/REPEAT. The TIMER lamp will light up to indicate that the TIMER has been reactivated.

To clear the TIMER setting, summon "TIMER page" and press CLEAR.

To reset, clear the setting and follow the steps from step 3.

1-4. WATCHING TV PROGRAMS



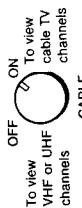
To adjust the picture,
see next page.

To adjust the picture	
SHARP	BRIGHT
for less sharpness	for more brightness
for more sharpness	for less brightness
PICTURE	PICTURE
Press to increase picture with vivid contrast color	Press to decrease picture contrast with soft color

1 Press POWER to
turn the TV on.

2 Set CABLE to the
appropriate position.

3 Set AUTO STEREO to ON.



- When receiving a Multichannel TV Sound program
Each time MTS is pressed, MAIN, SAP (Second Audio Program),
or both are selected in sequence. The corresponding indication
will appear on the screen for a while.
- To mute the sound
Press MUTING. The "MUTING" indication will appear on the
screen. To restore the sound, press MUTING again or VOL +/-.
To keep the channel display on the screen
Press DISPLAY.

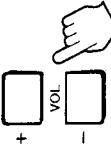
- If noise makes it hard to receive a very weak TV stereo program
Set AUTO STEREO on the TV to OFF so that the STEREO lamp
goes off.
The stereo effect will be cancelled, but reception will be
stabilized and the noise will be reduced.

- To switch quickly between 2 channels
Press JUMP. Each time JUMP is pressed, the channel which
appeared on the screen directly before is recalled. This button
enables you to keep track of two programs alternately.
- To cancel the SLEEP timer, press SLEEP again so that the
SLEEP lamp goes out, or turn off the TV.
- To turn off the system
Press POWER again.

- To have the TV turn off automatically after about 1 hour
Press SLEEP. The "SLEEP" indication will appear on the screen
for a few seconds and the SLEEP lamp on the TV will remain lit
until the TV is turned off.

5	Press VOL + or - to adjust the volume.
4	Select a channel in one of the following two ways: To scan the preset channels in numerical sequence, press CH +/-. For example, to select channel 10, press 1, 0 and ENTER. To select a channel directly, press the channel number button(s) and then ENTER. For example, to select channel 10, press 1, 0 and ENTER.
3	Set AUTO STEREO to ON.

PICTURE	PICTURE
Press to increase picture with vivid contrast color	Press to decrease picture contrast with soft color
HUE	HUE



skin tones
become
greenish

skin tones
become
purple

for more
color
intensity

for less
color
intensity

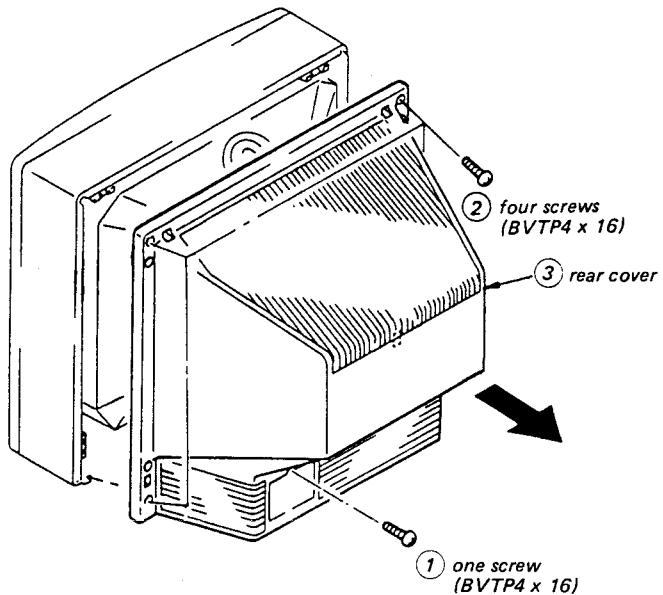
COLOR

PICTURE

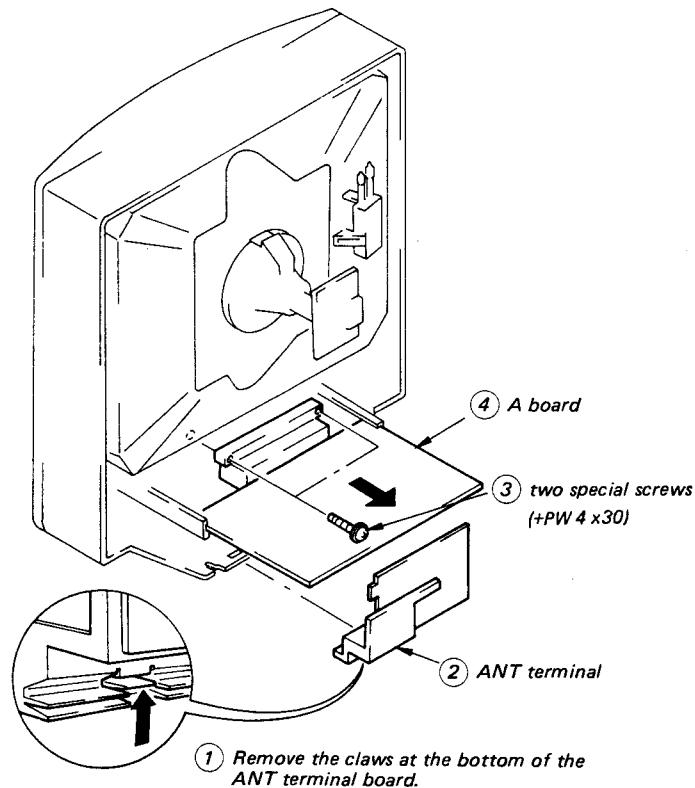
SECTION 2 DISASSEMBLY

2-1. REAR COVER REMOVAL

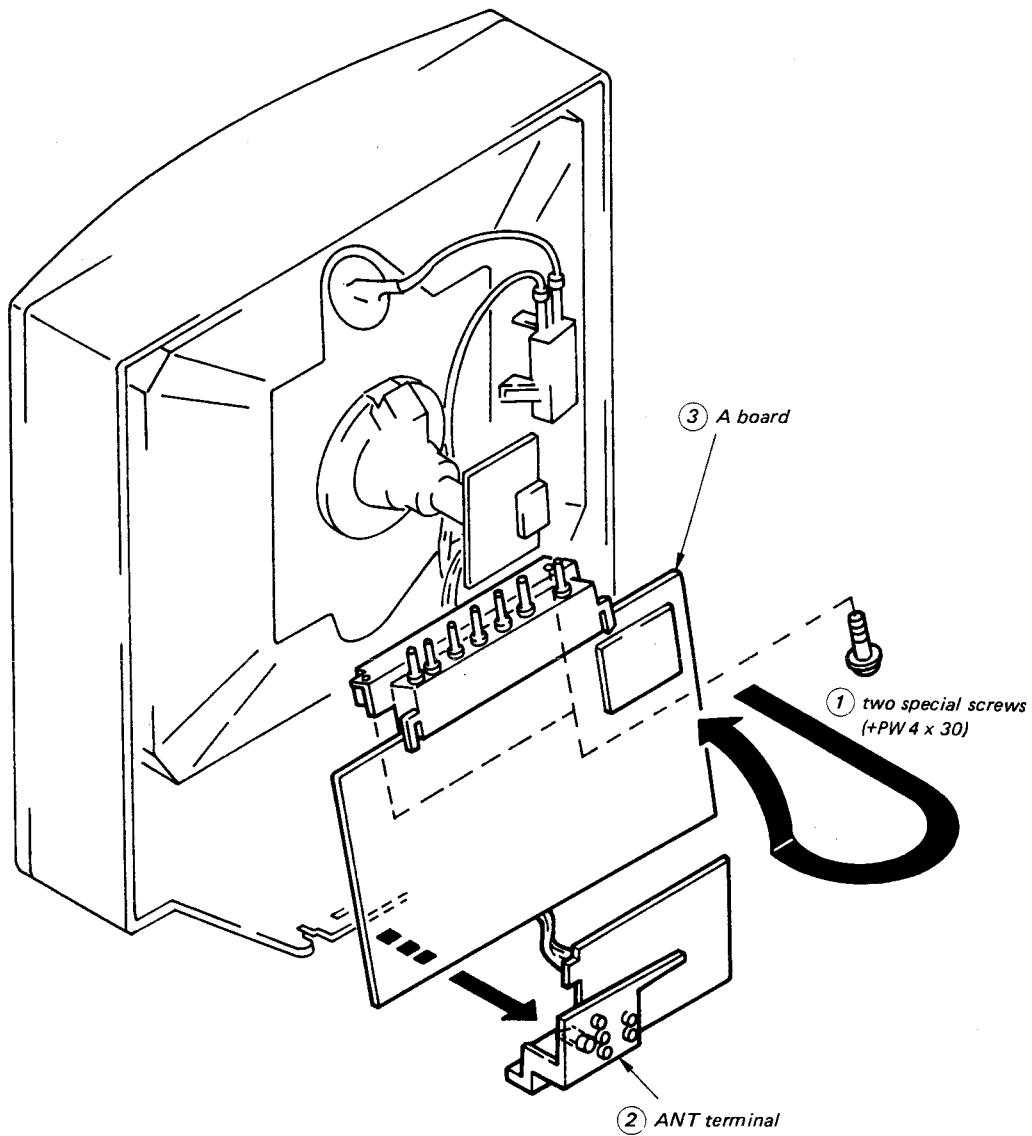
Note: In case a REAR COVER HOLDER is broken, secure the REAR COVER using a cross-head BVTP4 x 16 screw.



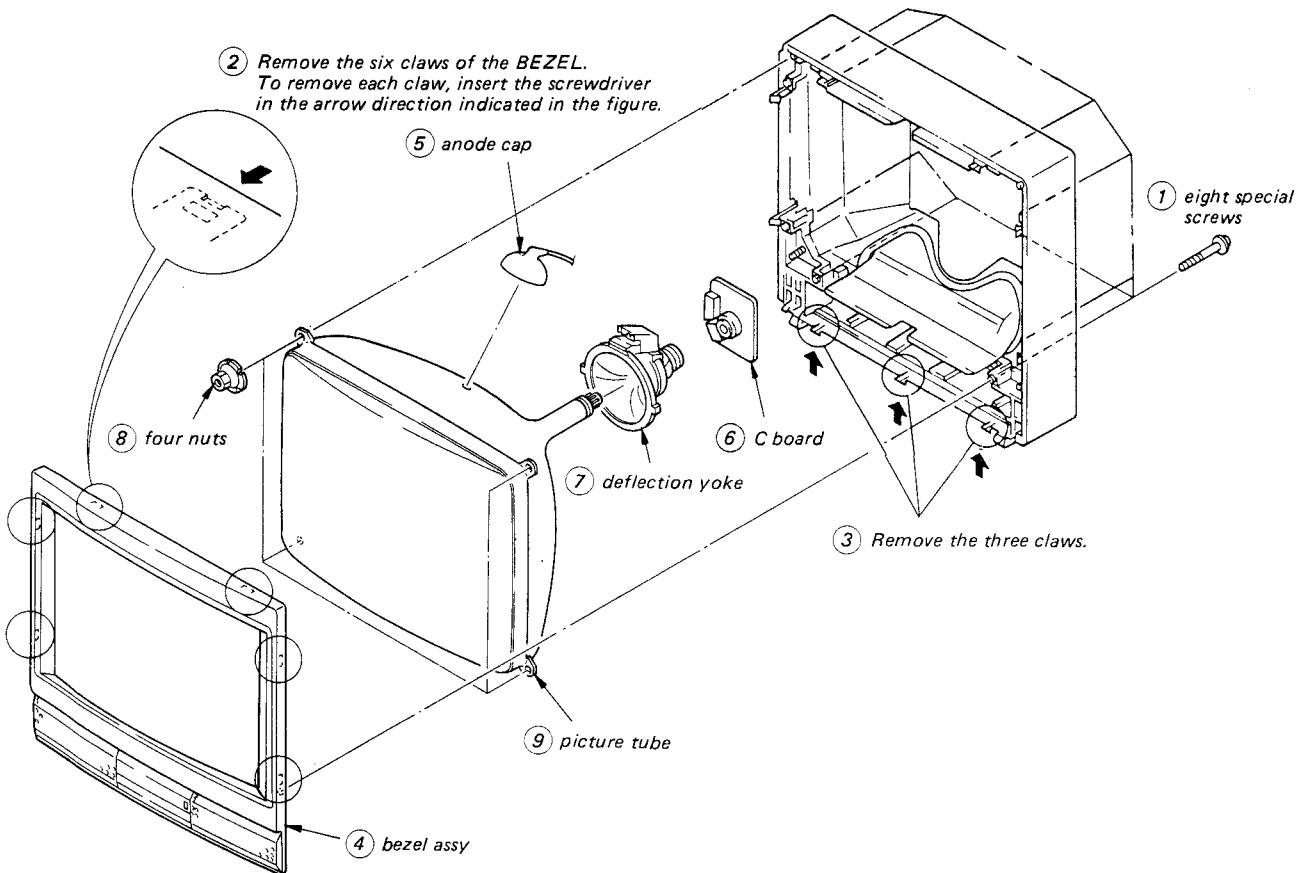
2-2. A BOARD REMOVAL



2.3. SERVICE POSITION

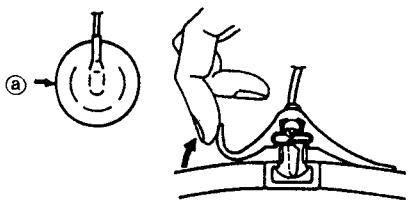


2-4. PICTURE TUBE REMOVAL

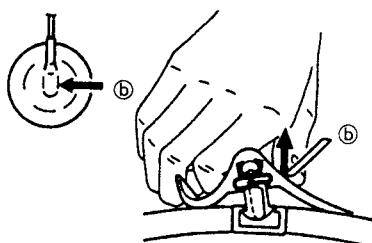


2-5. REMOVAL OF ANODE CAP

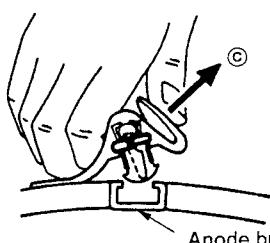
- REMOVAL OF ANODE-CAP
- REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ④.



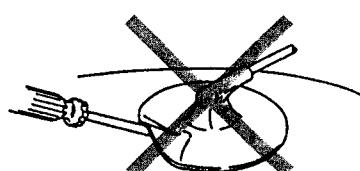
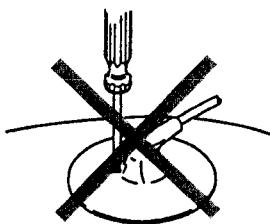
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⑤.



③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⑥.

• HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or hurt the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
 - These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted:

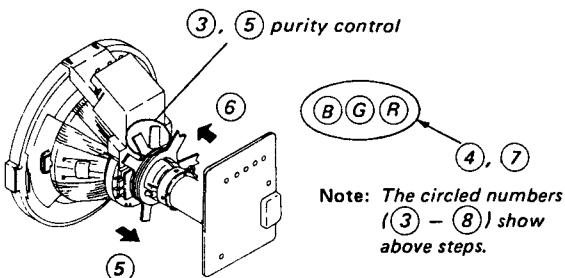
BRIGHTNESS control center

3-1. BEAM LANDING

Preparation:

- Feed in the white pattern.
 - Before starting, degauss the entire screen.

1. Turn on set power supply and receive an all-white signal.
 2. Evenly degauss the entire screen.
 3. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Figure 3-1.
 4. Set BKG VR **R** to maximum and set **B** and **G** to minimum.
 5. Move the deflection yoke back, and adjust the purity control so that **R** is in the center and **G** and **B** are at the sides, evenly. (Figure 3-2.)
 6. Move the deflection yoke forward so that the entire screen is red.
 - * If the deflection yoke is pushed all the way to the CRT then moved slightly back, landing adjustment is easier.
 7. Substitute **G**, then **B** for **R** in step 4 and check landing.
 8. Rotate **R**, **G** and **B** once each and check landing.
 9. When landing is not right, adjust the purity control and use magnets as shown in Figure 3-3. then repeat steps 7 and 8 .
 10. When a magnet is used, be sure to perform step 2 , and tighten deflection yoke mounting screw loosely.



Perform the adjustments in order as follows:

1. Beam Landing
 2. Convergence
 3. Focus
 4. White Balance

Note: Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser

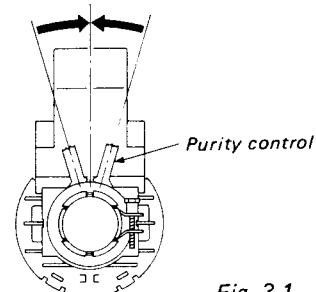


Fig. 3-1.

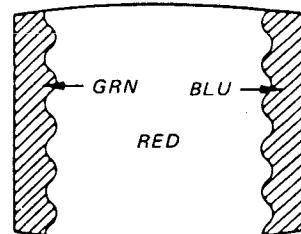


Fig. 3-2.

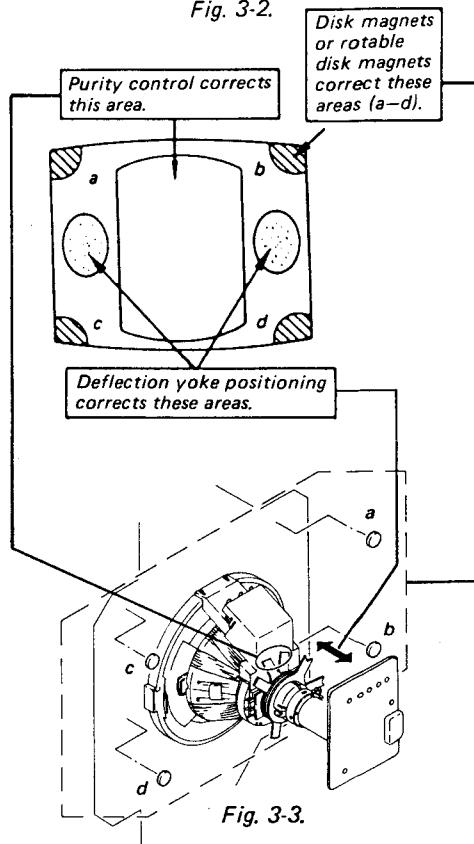


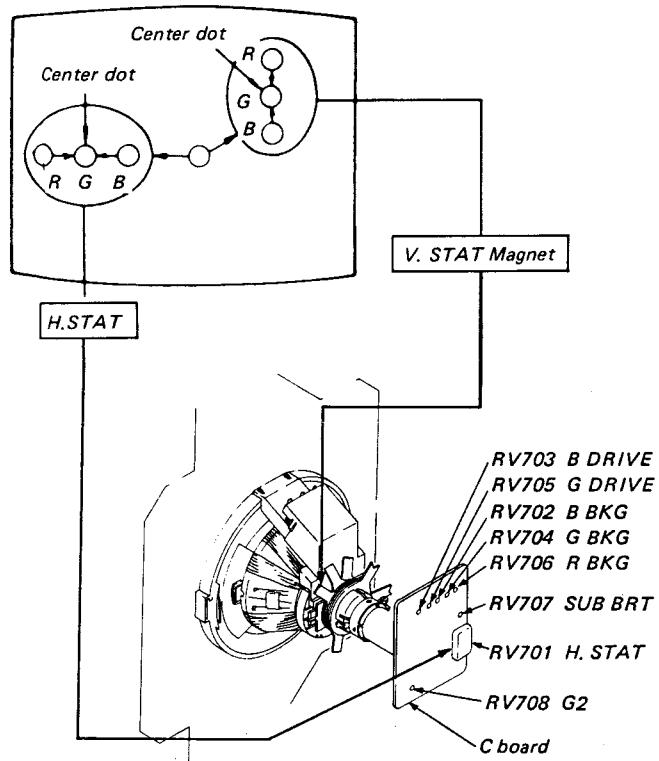
Fig. 3-3.

3.2. CONVERGENCE

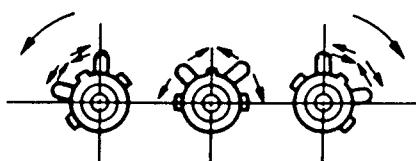
Preparation:

- Before starting, perform FOCUS, H. SIZE, V. SIZE and V. LIN adjustments.
- Set BRIGHTNESS control to fully counterclockwise.
- Feed in the dot pattern.

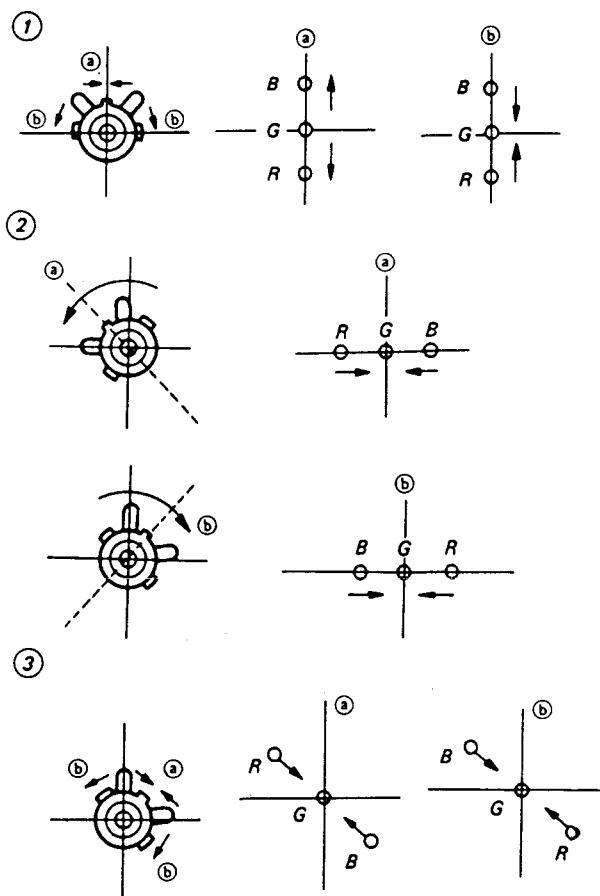
(1) Horizontal and Vertical Static Convergence



1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen (Horizontal movement)
2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen (Vertical movement)
3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)
- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



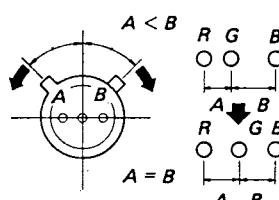
4. When the V. STAT magnet is moved in the direction of arrow (a) and (b), Red, Green and Blue dots move as shown below.



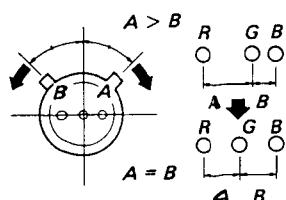
• HMC and VMC correction for Hexapole Magnet.

1. HMC (Horizontal Mis. convergence) correction and motion of the Electron Beam with the Hexapole Magnet.

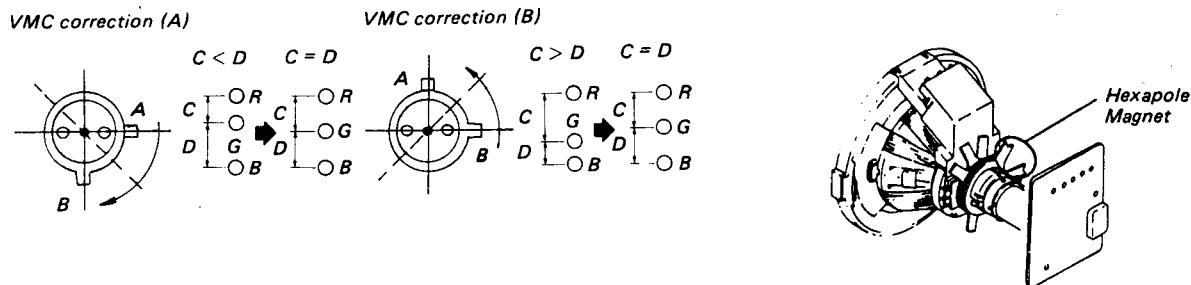
HMC correction (A)



HMC correction (B)



2. VMC (Vertical, Mis, convergence) correction and motion of the Electron Beam with the Hexapole Magnet.



(2) Dynamic Convergence Adjustment

Preparation:

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
- Loosen deflection yoke screw.
 - Remove deflection yoke spacers.
 - Move the deflection yoke for best convergence as shown in Fig. 7.
 - Tighten the deflection yoke screw.
 - Install the deflection yoke spacers.

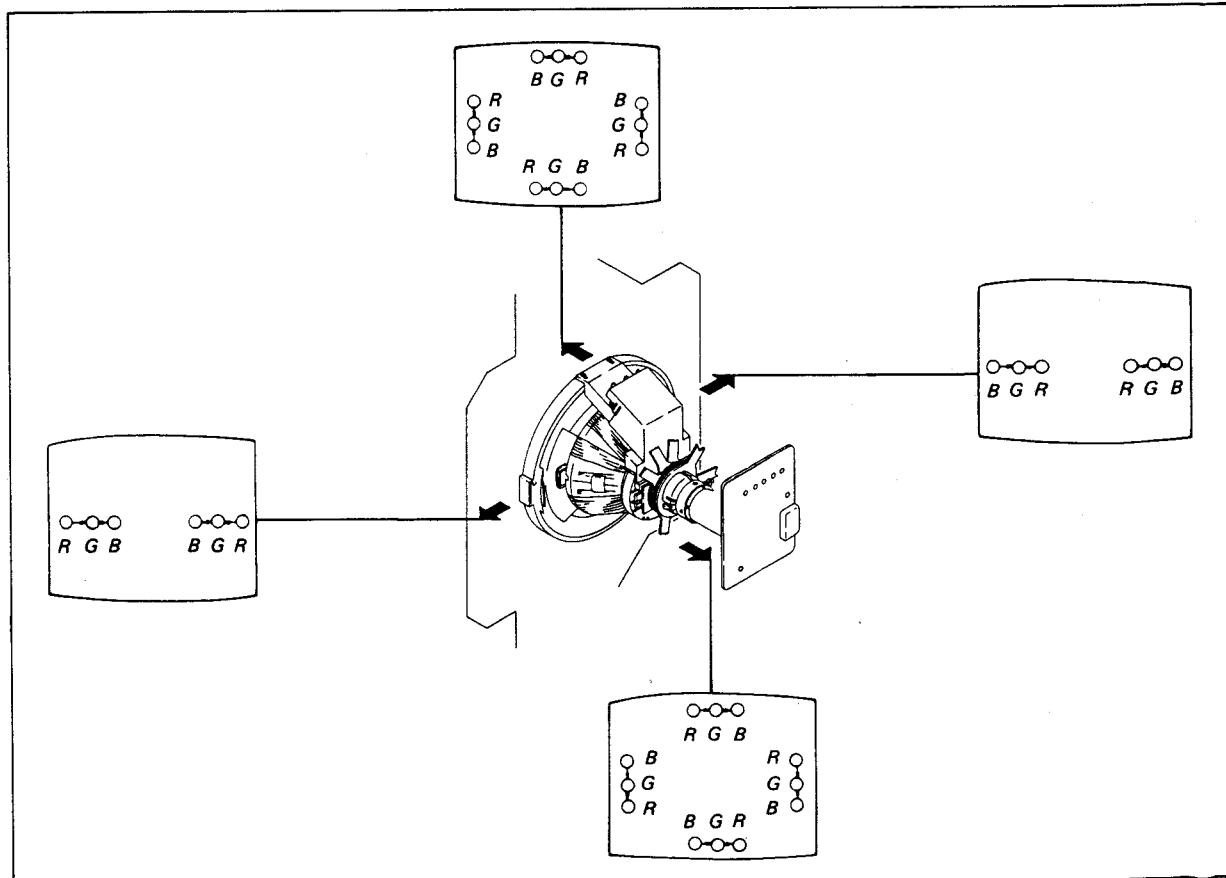
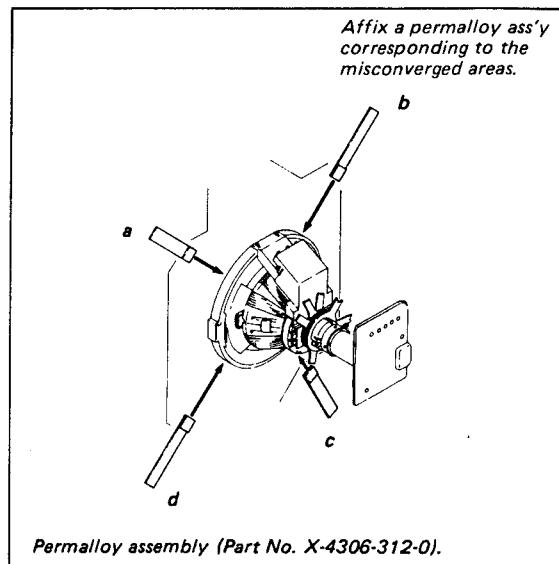
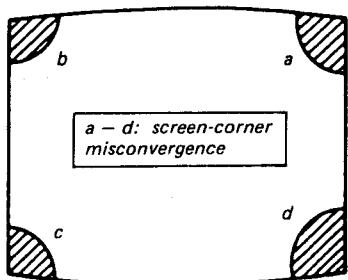


Fig. 7

(3) Screen-corner Convergence



3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for a best focus.

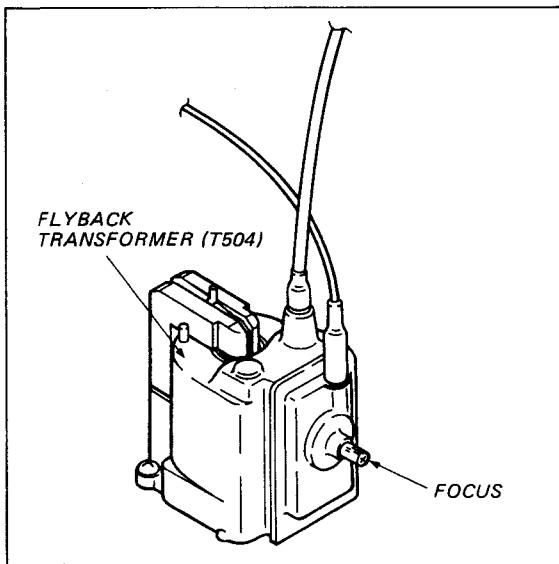


Fig. 15

3-4. WHITE BALANCE

Feed in the cross-hatch pattern.

1. Set the PICTURE and BRIGHT controls to minimum position (fully counterclockwise).
2. Turn B. DRIVE and G. DRIVE controls fully clockwise.
3. Set B. BKG, G. BKG and R. BKG controls to mechanical center.
4. Turn SCRN control slowly to obtain a faintly visible cross-hatch. Note the color that first becomes visible by turning SCRN control. Do not turn a BKG control for this color.
5. Adjust the other two BKG controls for best white balance (neutral gray) of the faint cross-hatch.
6. Set the PICTURE and BRIGHTNESS controls to maximum position (fully clockwise). Observe the screen and adjust the DRIVE controls for best white balance.
7. Repeat Steps 1 through 6 several times.

H CENT ADJUSTMENT (A-18)

1. Receive a cross-hatch signal.
2. Set PICTURE and BRIGHT to normal.
3. Adjust H.CENT (H.CENT TAP = A-18) for best picture.

BALANCE ADJUSTMENT (RV291)

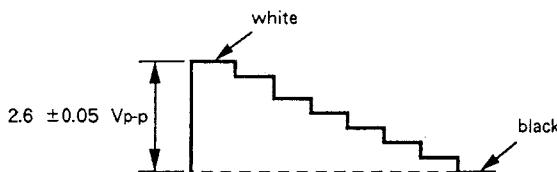
1. Receive 400 Hz (100 % modulation) sound signal.
2. Sound volume 80 %
3. Connect an oscilloscope to the pin ① and pin ② of A-7 connector.
4. Adjust RV291 (BALANCE) to be the same level.

V.CENT ADJUSTMENT (S501)

1. Receive a cross-hatch signal.
2. Set PICTURE and BRIGHT to normal.
3. Adjust V.CENT (S501) and V.SIZE (RV507) for best picture.

SUB CONTRAST ADJUSTMENT (RV307)

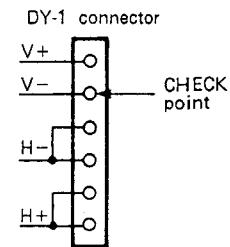
1. Receive a color-bar signal.
PICTURE MAX
BRIGHT CENTER
COLOR MIN
SHARP MIN
2. Short circuit between Base of Q354 and 9.3V Line with a jumper wire.
3. Draw A-8 connector. (Short circuit R352.)
4. Connect an oscilloscope to the pin ④ of A-8 connector (blue out).
5. Adjust RV307 (SUB CONT) so that voltage is 2.6 ± 0.05 Vp-p.

**H.RREQ ADJUSTMENT (RV501)**

1. Receive an off-air signal.
2. Short circuit between pin ④ of IC301 (H IN) and pin ⑩ of IC301 (VCC 2) with a jumper wire.
3. Connect the frequency counter across Base of Q550 and ground.
4. Adjust RV501 for $15,734$ kHz ± 50 Hz on the frequency counter.
5. Disconnect a jumper wire from IC301.

V.FREQ ADJUSTMENT (RV502)

1. Receive an off-air signal.
2. Short circuit between pin ④ of IC301 (V IN) and pin ⑩ of IC301 (VCC 2) with a jumper wire.
3. Connect the frequency counter across DY-1 connector (V.DY ⊖) and ground.
4. Adjust RV502 for 55.0 ± 0.3 Hz on the frequency counter.
5. Disconnect a jumper wire from IC301.

**CHARACTER POSITION (T101)**

1. Receive a color-bar signal.
2. Set the PICTURE control to maximum setting and set the BRIGHT control to center click position.
3. Press the PICTURE control button until this picture level becomes maximum.
4. Adjust T101 as shown in Fig. 1.

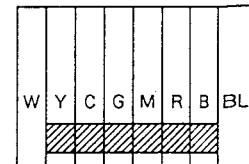


Fig. 1

PICTURE BLANKING CONFIRMATION

The following adjustments should always be performed when replacing the following components.

Regarding components of \otimes R388.

IC301, D506, R341, R344, R378, R379, R380, R382, R383, PM501

1. Connect the variable auto-transformer to AC line and turn the POWER switch ON.
2. Receive monoscope signal.
3. Set the PICTURE control to 80 % and the BRIGHT control to center click position.
4. Connect the digital voltmeter to TP91 (135V : A-14 connector).
5. Connect the AC voltmeter to A-10 connector.
6. Slowly decrease the AC power supply voltage by the variable auto-transformer and confirm that the picture is blanked when the voltage at TP91 is more than 107.5 Vdc.

V.SIZE CONFIRMATION

The following adjustments should always be performed when replacing the following components.

Regarding components of \otimes R555 (V.SIZE).

DY, IC301, R514, R515, R555, R556, T504, RV507

1. Turn the POWER switch ON, and receive monoscope signal.
2. Set the PICTURE control in to 80 % and the BRIGHT control to center click position.
3. Adjust RV507 (V.SIZE) so that the V.SIZE becomes minimum, and confirm that the raster size is 29 cm or more.

H.SIZE CONFIRMATION

The following adjustments should always be performed when replacing the following components.

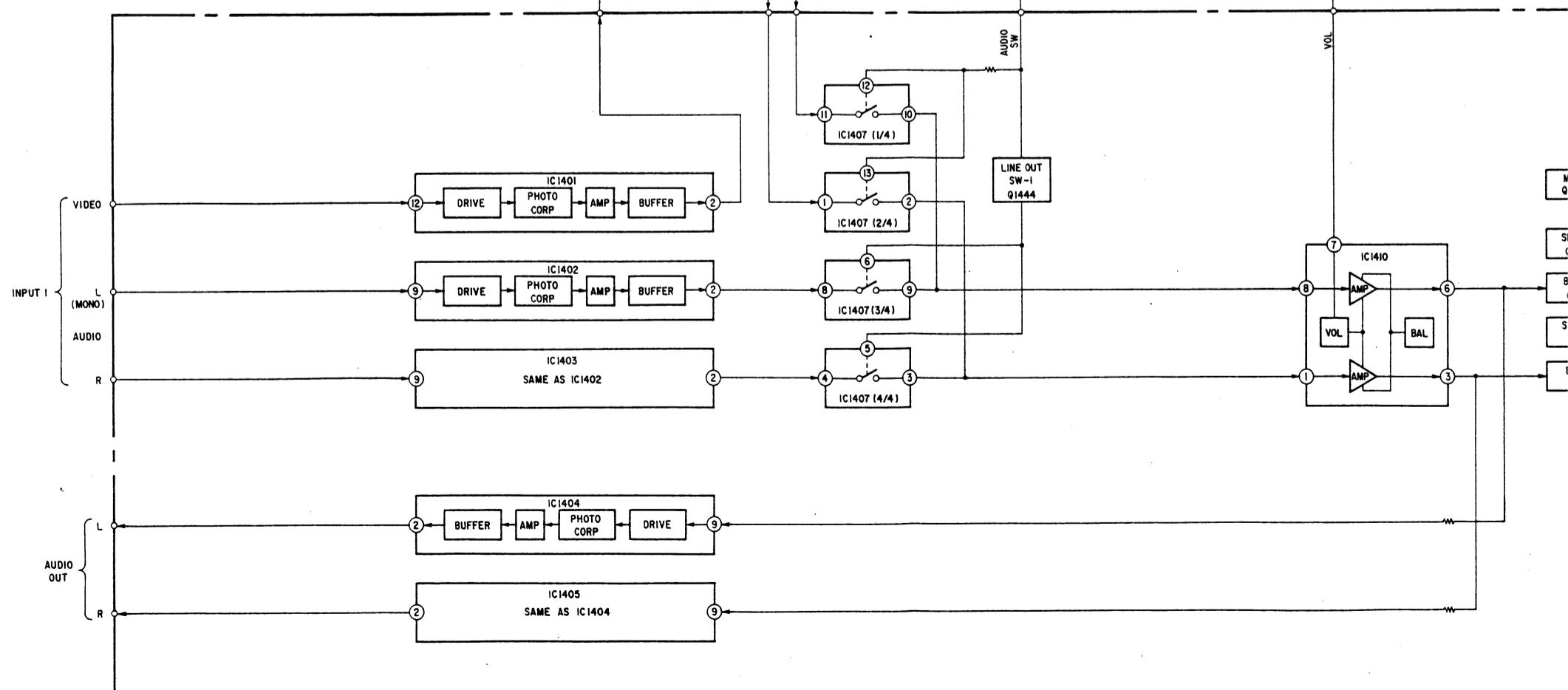
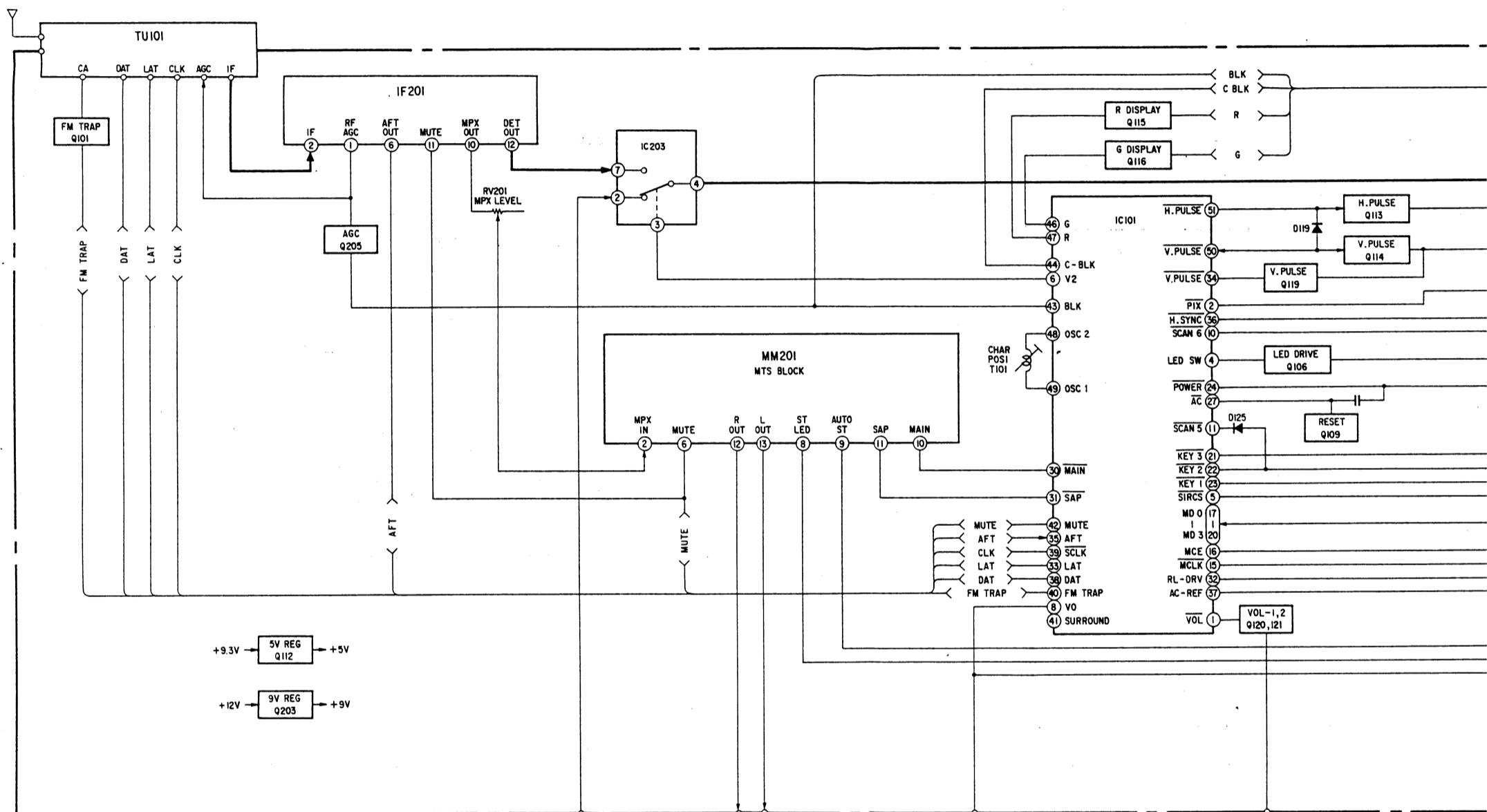
Regarding components of \otimes R551 (H.SIZE).

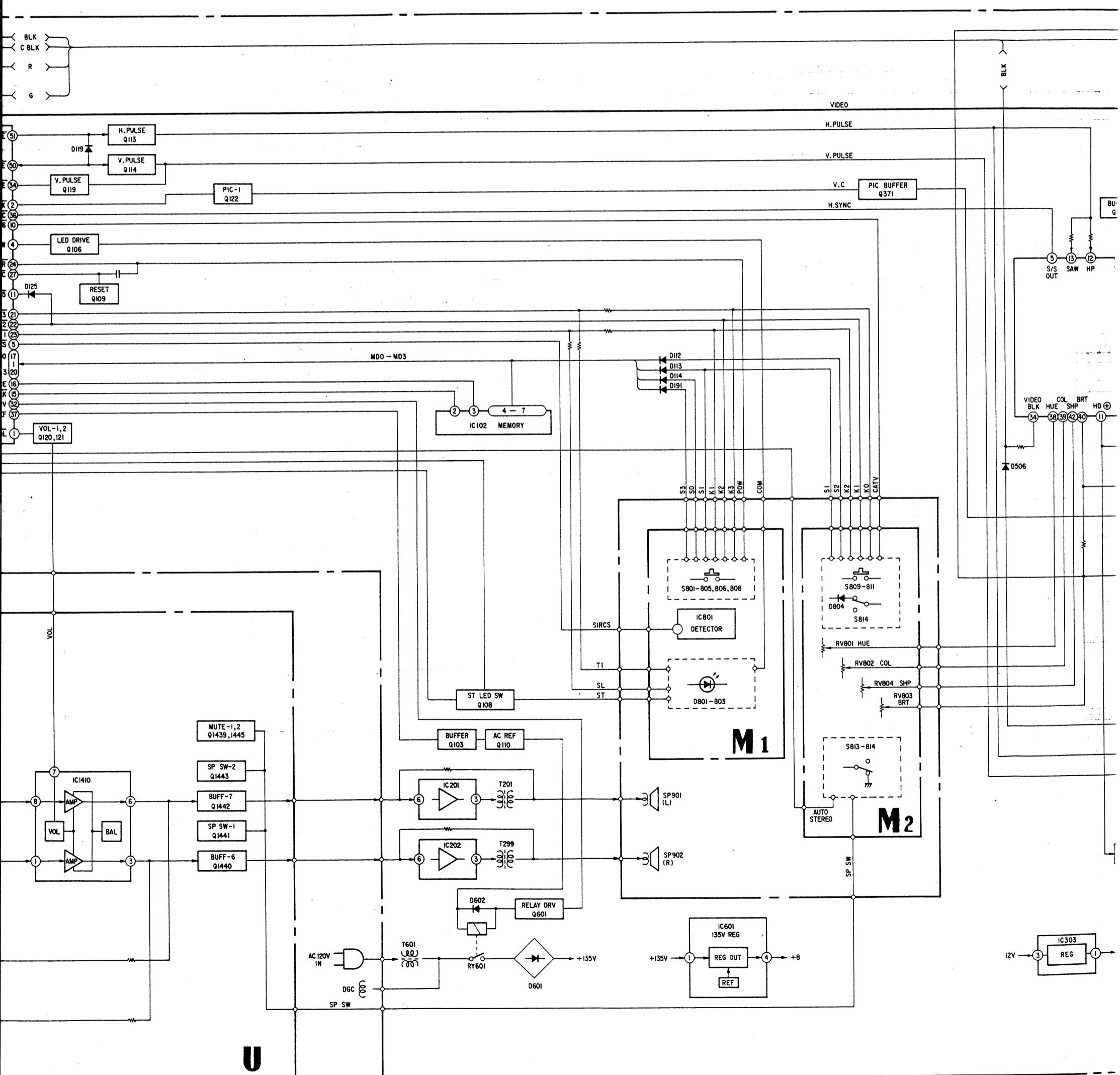
DY, C563, C565, R551, R554, R578, T504, RV506

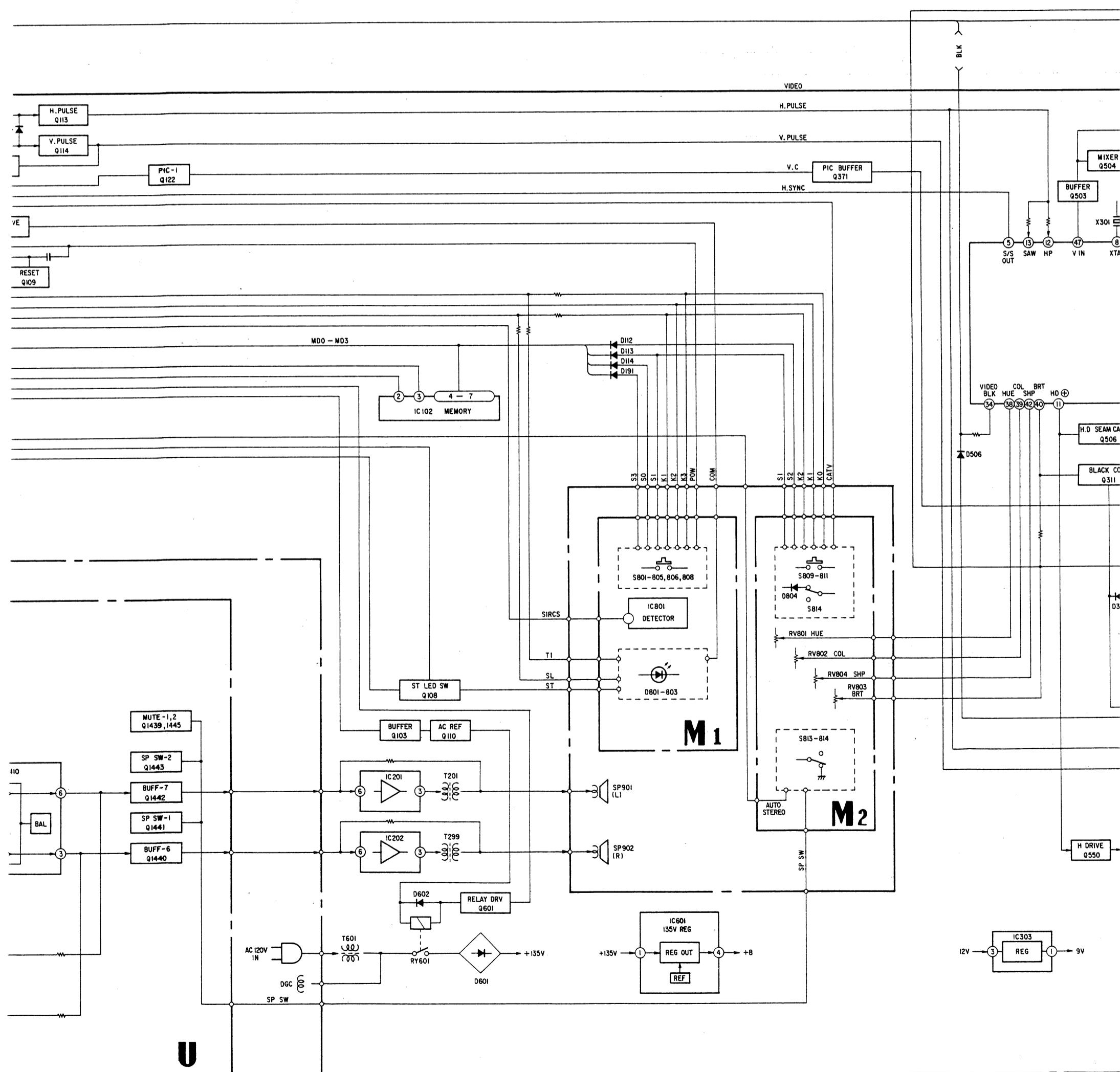
1. Turn the POWER switch ON, and receive monoscope signal.
2. Set the PICTURE control in to 80 % and the BRIGHT control to center click position.
3. Confirm that the H.SIZE at minimum should not exceed 16.4 frames by adjusting RV506 (H.SIZE).

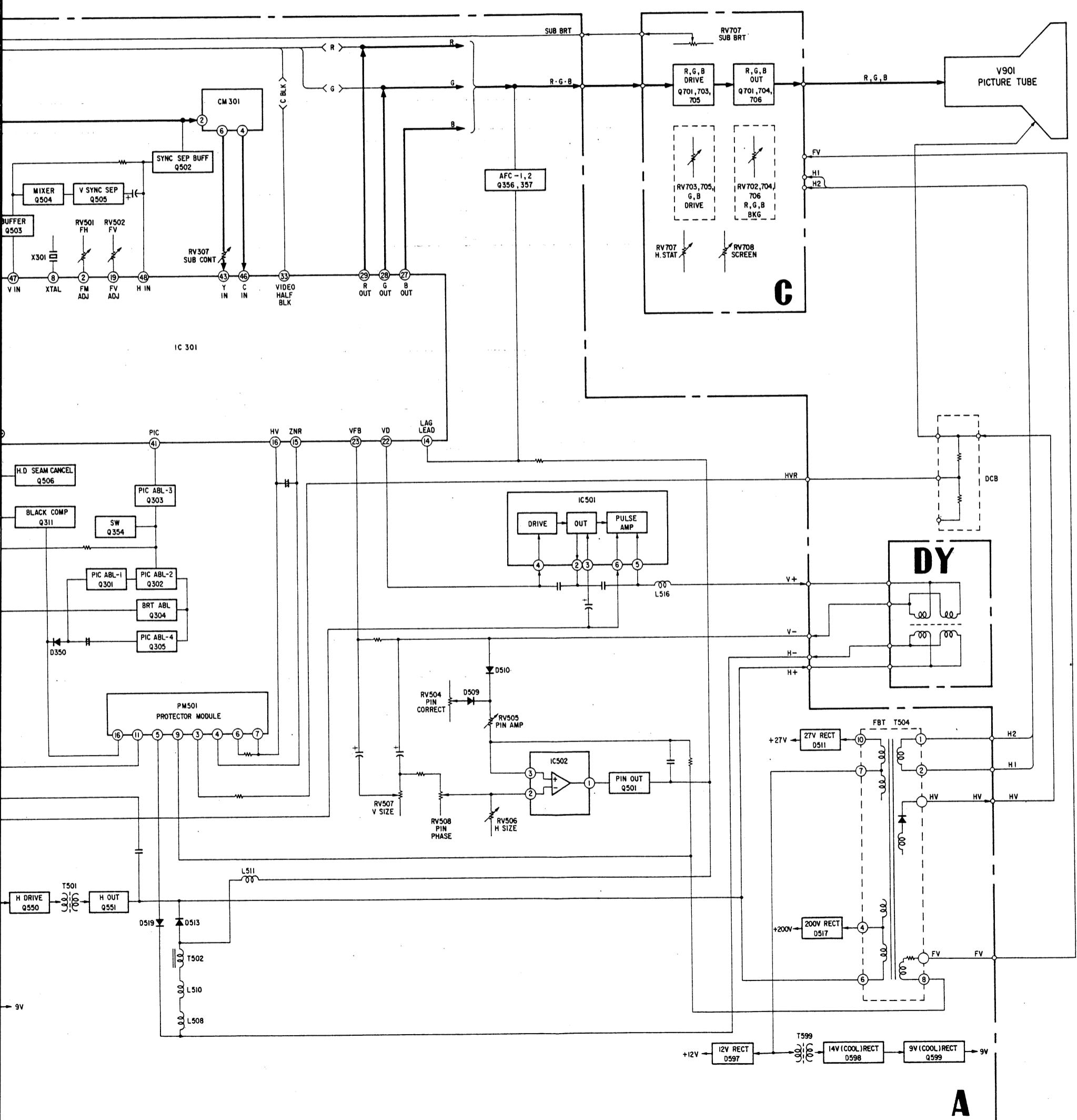
SECTION 6 DIAGRAMS

6-1 BLOCK DIAGRAM

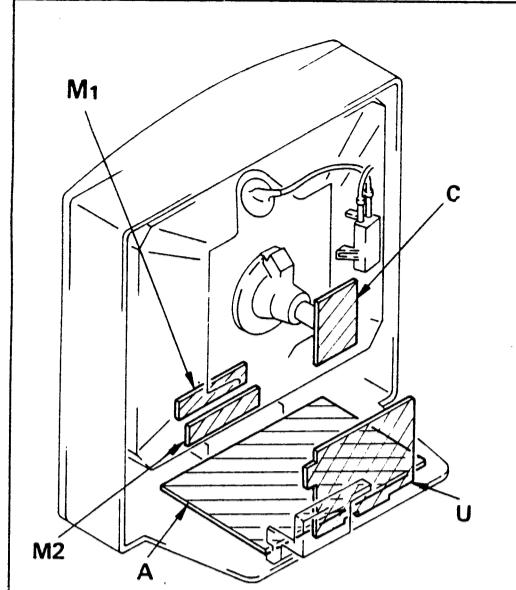








6-2. CIRCUIT BOARDS LOCATION



Note:

- All capacitors are in μF unless otherwise noted. pF : μpF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms.
- \triangle : internal component.
- \square : nonflammable resistor.
- \square : adjustment for repair.
- Indication of resistance, which does not have one for rating electrical power is as follows.

Pitch: 5 mm

Rating electrical power: 1/4 W

Reference information

RESISTOR	: RN METAL FILM
	: RC SOLID
	: FPRD NONFLAMMABLE CARBON
	: FUSE NONFLAMMABLE, FUSIBLE
	: RS NONFLAMMABLE WIREWOUND
	: RB NONFLAMMABLE CEMENT
COIL	: LF-8L MICRO INDUCTOR
CAPACITOR	: TA TANTALUM
	: PS STYROL
	: PP POLYPROPYLENE
	: PT MYLAR
	: MPS METALIZED POLYESTER
	: MPP METALIZED POLYPROPYLENE
	: ALB BIPOLAR
	: ALT HIGH TEMPERATURE
	: ALR HIGH RIPPLE

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by \square in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by \square , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by \square and repeat the adjustment until the specified value is achieved. (Refer to R381 adjustment on Page 15, 16.) When replacing the part in below table, be sure to perform the related adjustment.

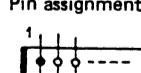
Part replaced (■)	Adjustment (■)
IC301, PM501, R512, R381, R382, R378, R379, R344	R381 (HOLD DOWN)

- Voltages are dc with respect to ground unless otherwise noted.
- All voltages are in V.
- Readings are taken with a $10 \text{ M}\Omega$ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- --- : B+ bus.
- The hold down check point is pin 4 of A-14 connector.
- \cdots : signal path.

Note: The components identified by shading and mark \triangle are critical for safety. Replace only with part number specified.

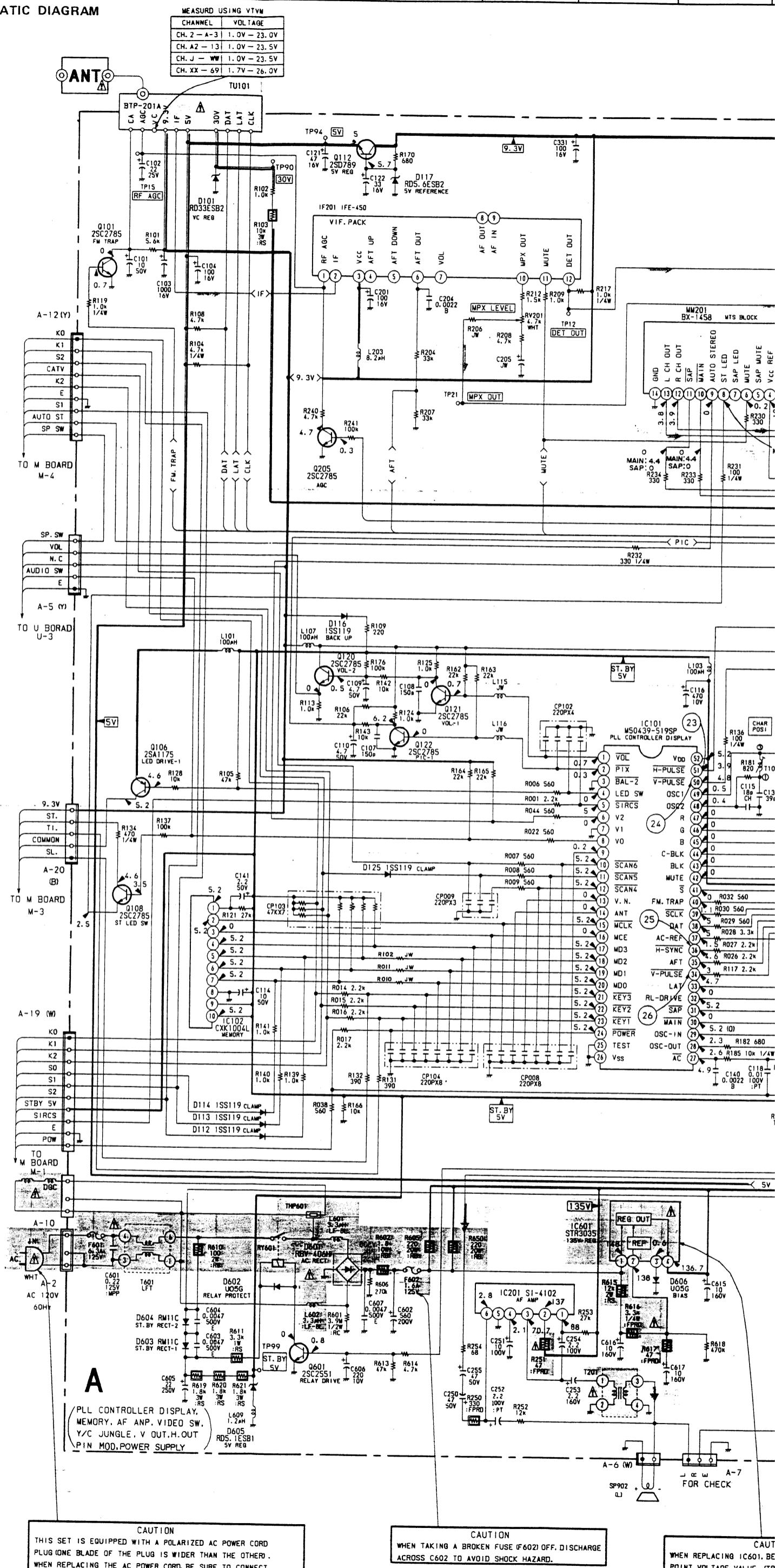
Note: Les composants identifiés par un trame et une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Pin assignment of connectors in as follows.



wider than others

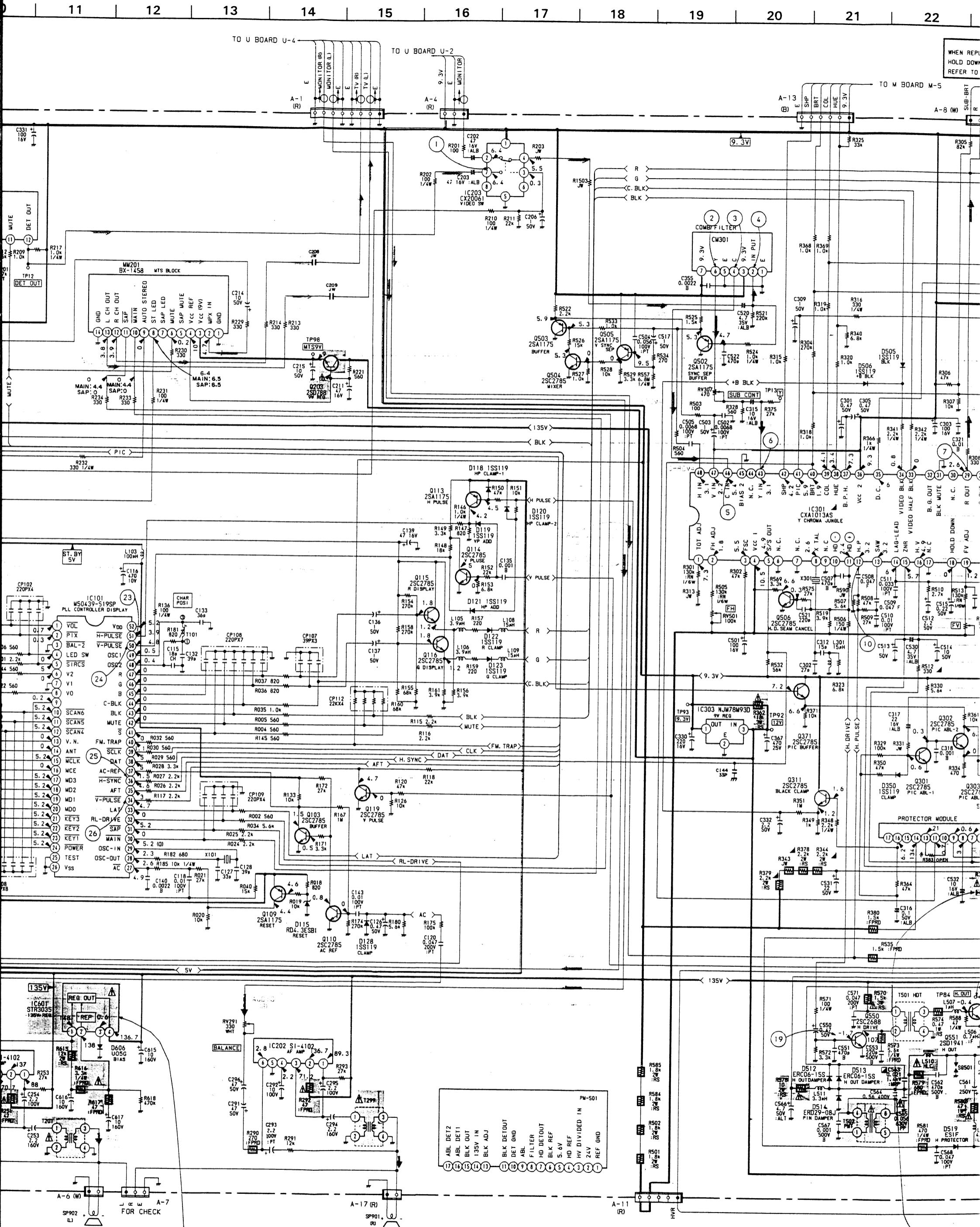
6-3. SCHEMATIC DIAGRAM



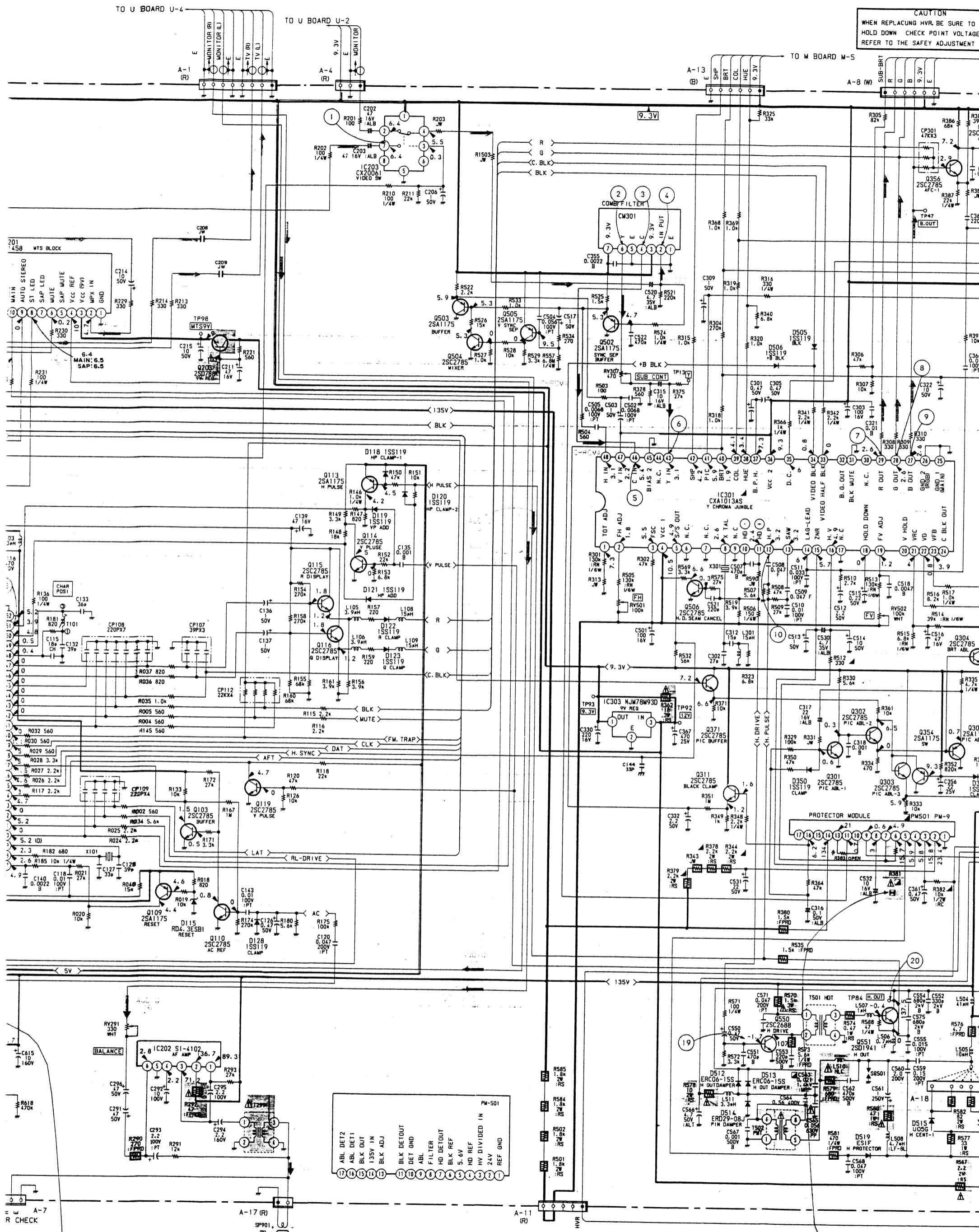
CAUTION
THIS SET IS EQUIPPED WITH A POLARIZED AC POWER CORD.
PLUG ONE BLADE OF THE PLUG IS WIDER THAN THE OTHER.
WHEN REPLACING THE AC POWER CORD, BE SURE TO CONNECT
IT WITH SPECIFIED PART NUMBER AS SHOWN IN THIS DIAGRAM.

CAUTION
WHEN TAKING A BROKEN FUSE (F602) OFF, DISCHARGE
ACROSS C602 TO AVOID SHOCK HAZARD.

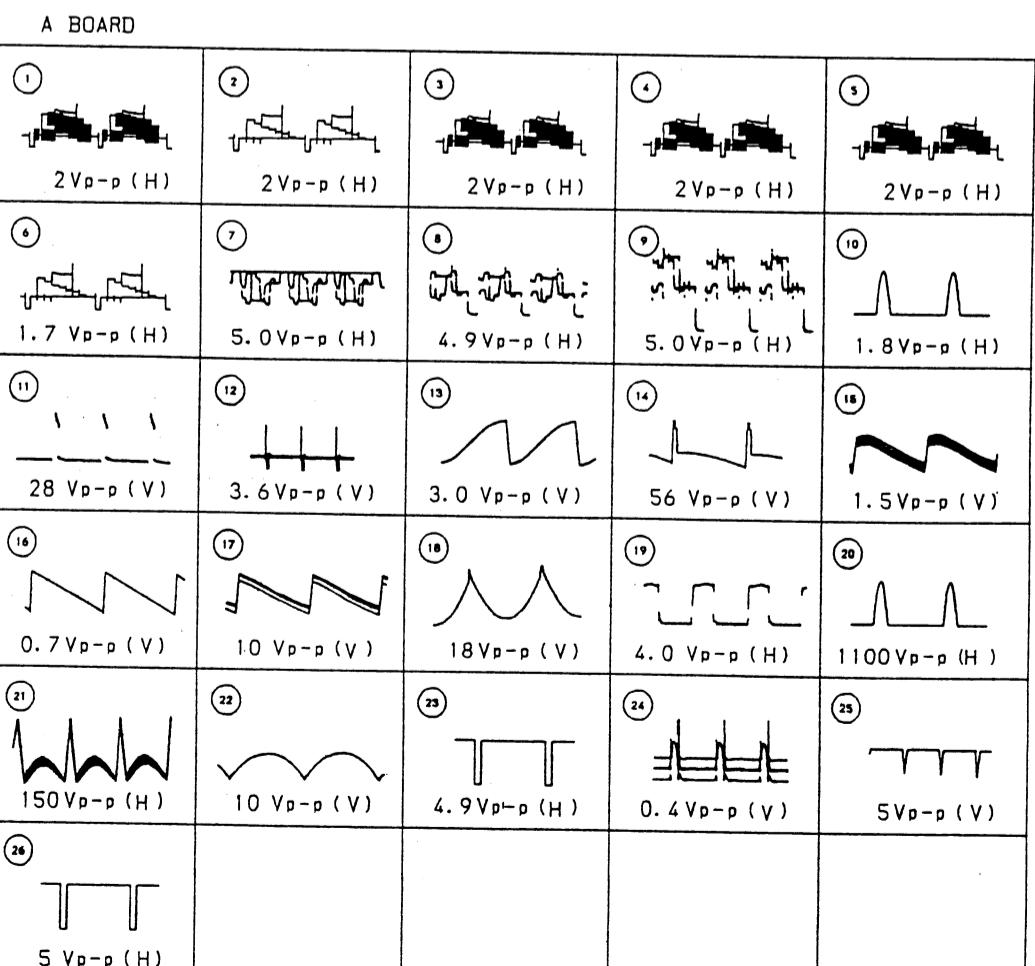
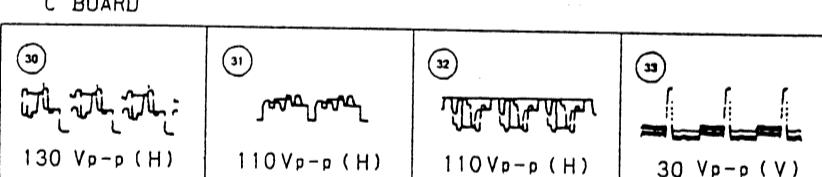
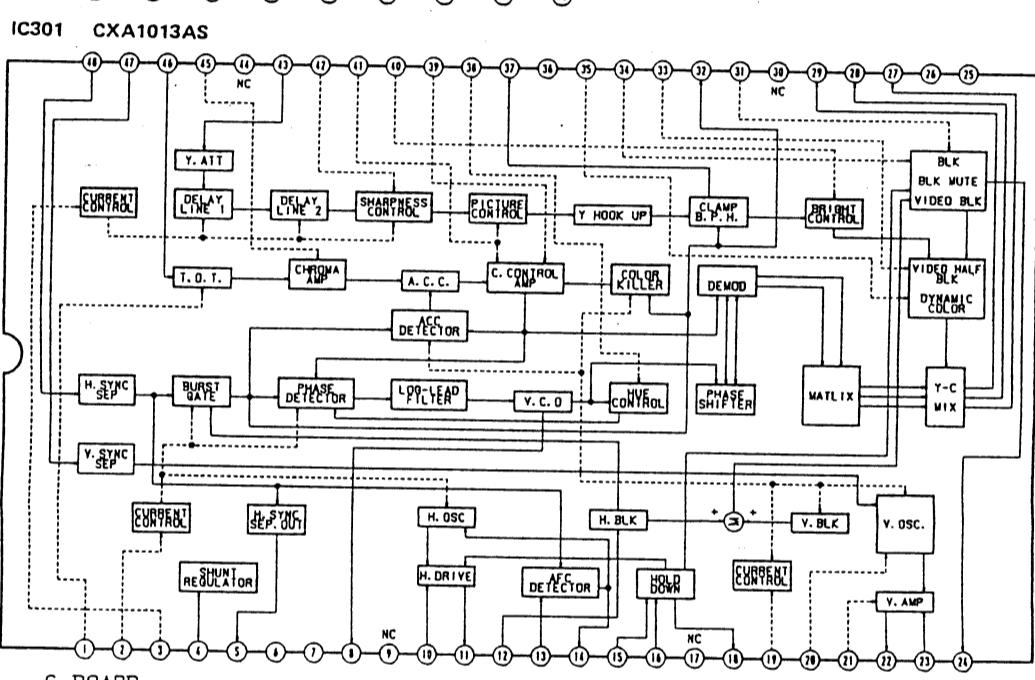
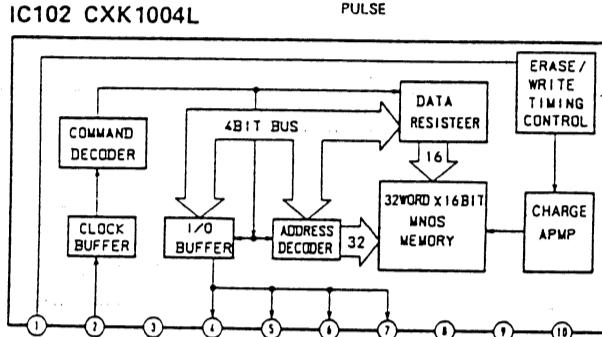
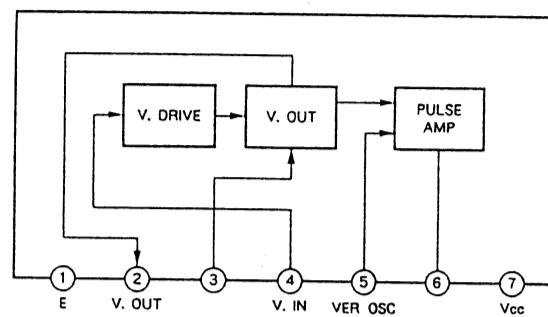
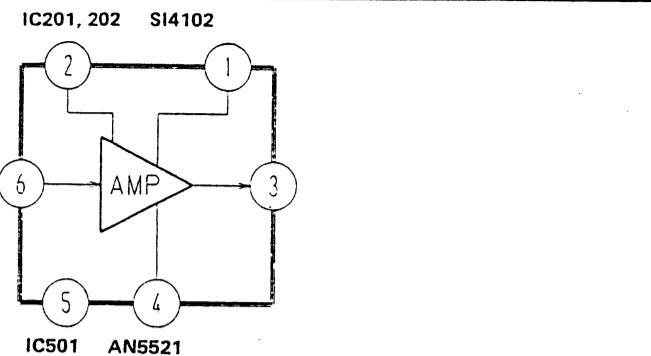
CAUTION
WHEN REPLACING IC601, BE
POINT VOLTAGE VALUE (TP
ADJUSTMENT LTM).



CAUTION
WHEN REPLACING IC601, BE SURE TO CHECK THE TEST
POINT VOLTAGE VALUE (TP91). REFER TO THE SAFETY.
ADJUSTMENT ITEM.



NE SURE TO CHECK THE
NT VOLTAGE VALUE.
DJUSTMENT ITEM.

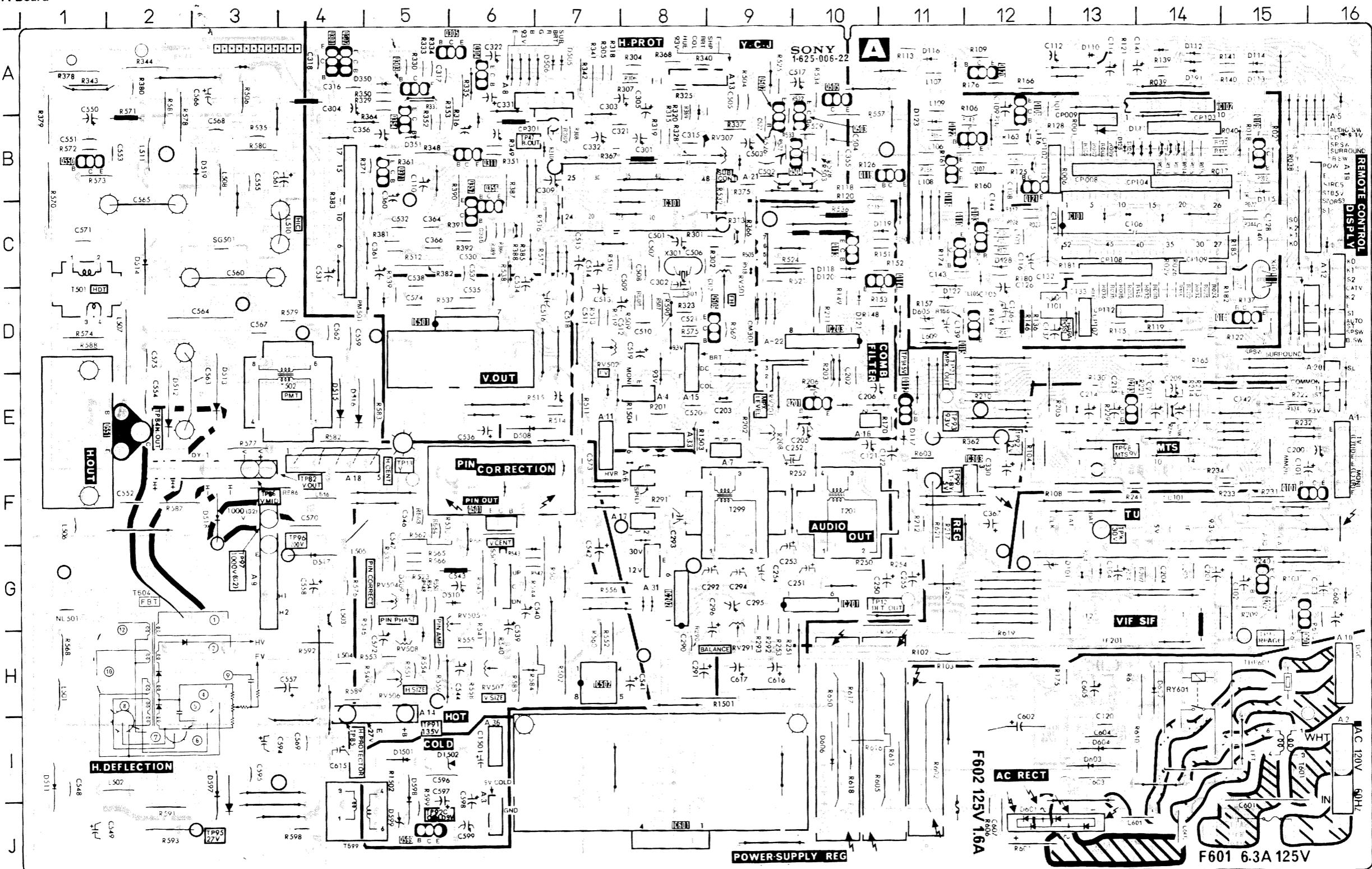


6-4. PRINTED WIRING BOARDS - Conductor Side -

A

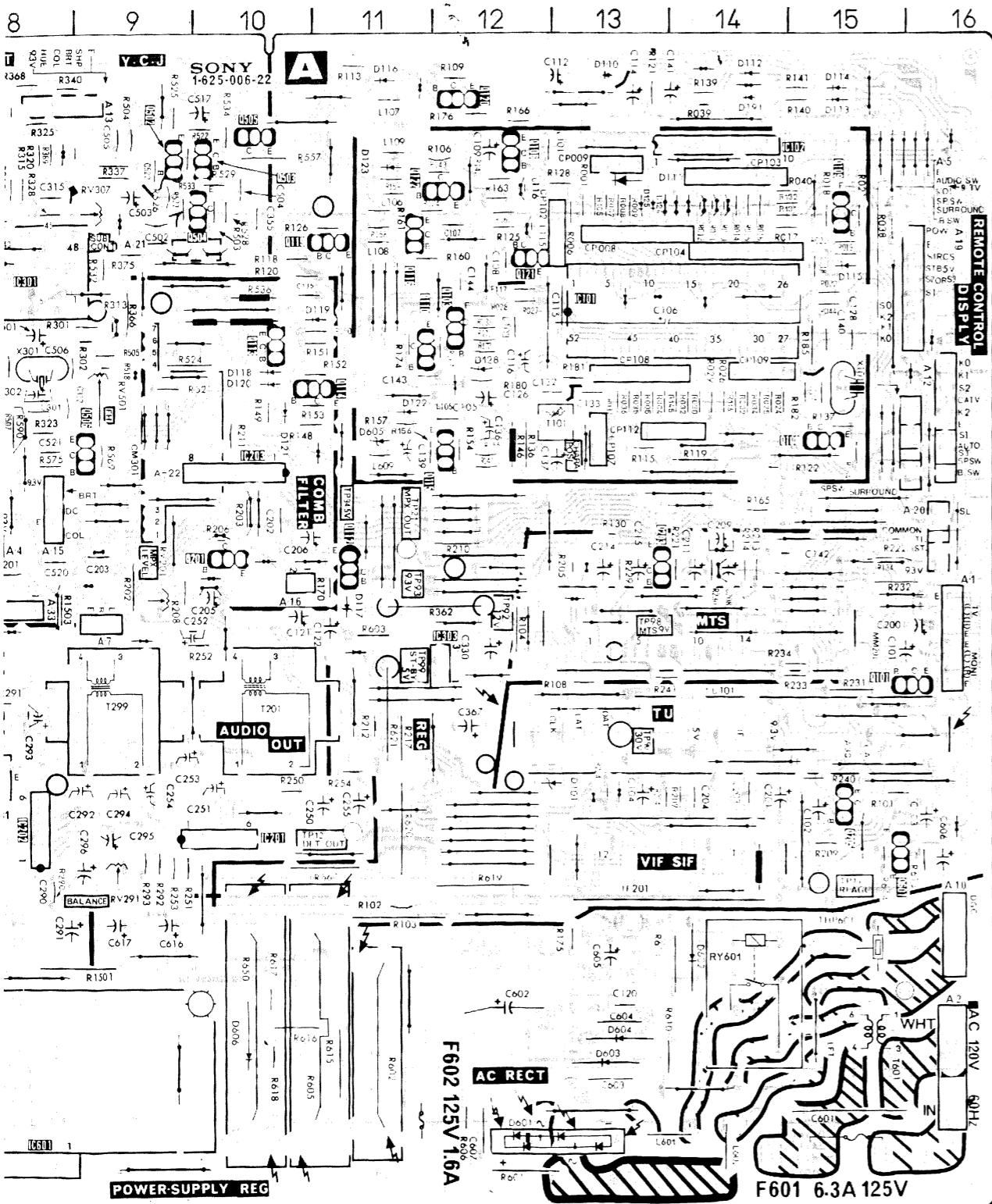
PLL CONTROLLER DISPLAY, MEMORY,
AM AMP, VIDEO SW, Y/C JUNGLE,
V OUT, PIN MDD, H OUT POWER SUPPLY

- A Board -



A Board
 IC10
 IC102
 IC20
 IC202
 IC30
 IC302
 IC50
 IC502
 IC60
 TRA
 Q101
 Q103
 Q106
 Q108
 Q11C
 Q112
 Q113
 Q114
 Q115
 Q116
 Q118
 Q120
 Q121
 Q122
 Q203
 Q205
 Q301
 Q302
 Q303
 Q304
 Q305
 Q311
 Q354
 Q356
 Q357
 Q371
 Q501
 Q502
 Q503
 Q504
 Q505
 Q550
 Q551
 Q599
 Q601

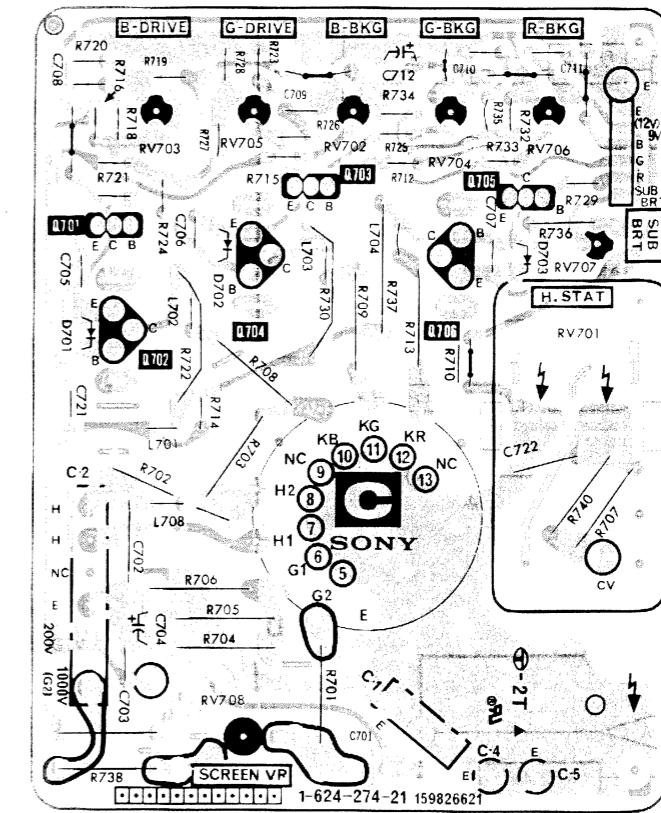
MEMORY,
, SUPPLY]



A Board

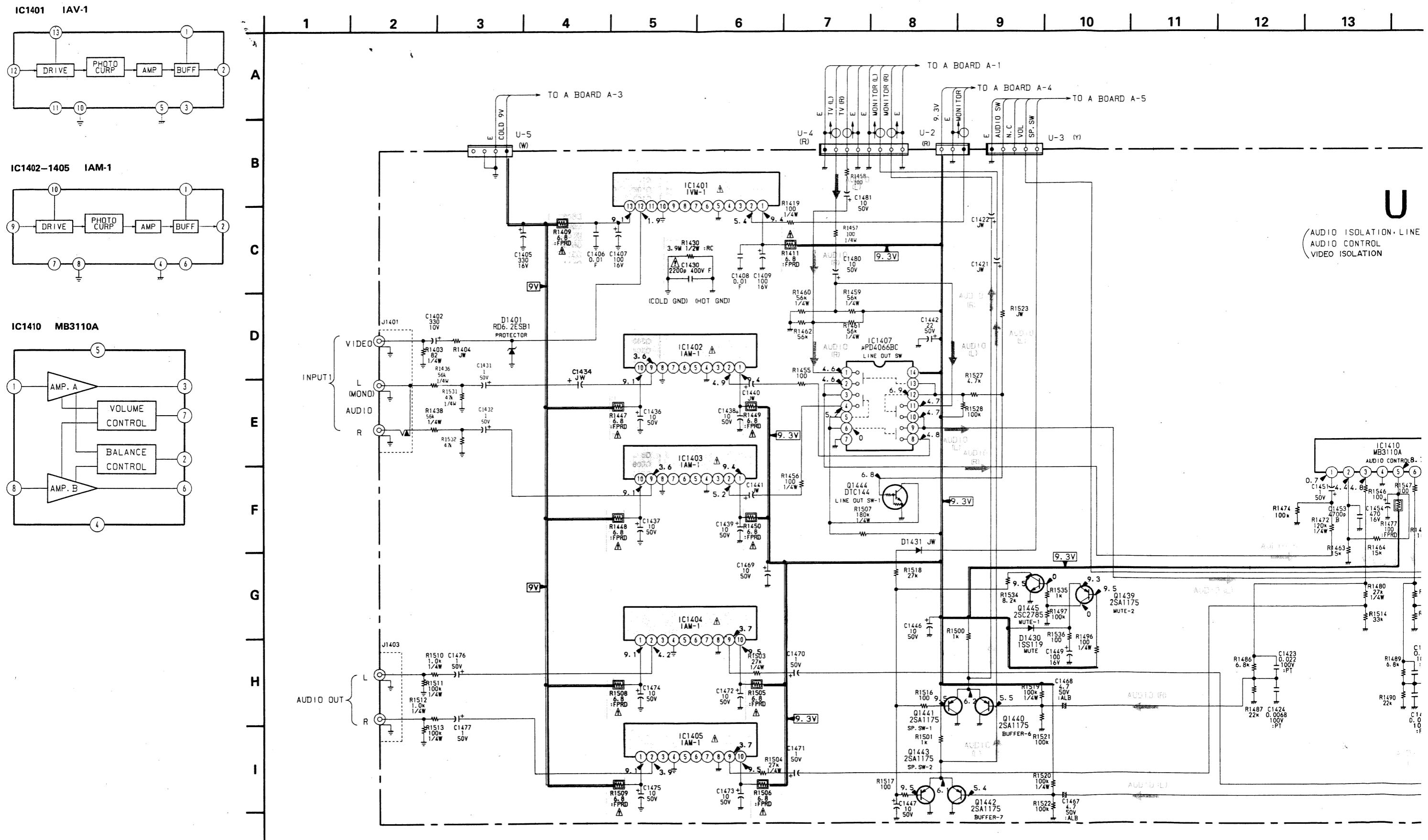
IC	DIODE	MODULE
IC101	C-13	D101
IC102	A-14	D112
IC201	G-10	D113
IC202	G-8	D114
IC203	D-10	D115
IC301	C-8	D116
IC303	F-12	D117
IC501	D-5	D118
IC502	H-7	D119
IC601	J-8	D120
		D121
TRANSISTOR		D122
		D123
Q101	F-16	D124
Q103	C-12	D124
Q106	B-12	D125
Q108	D-15	D128
Q109	B-15	D350
Q110	C-11	D351
Q112	E-11	D505
Q113	C-10	D506
Q114	C-11	D508
Q115	D-12	D509
Q116	B-11	D510
Q119	B-11	D511
Q120	A-12	D512
Q121	B-12	D513
Q122	B-12	D514
Q203	E-13	D515
Q205	G-15	D516
Q301	A-4	D517
Q302	A-4	D518
Q303	A-5	D519
Q304	A-6	D597
Q305	A-6	D598
Q311	B-6	D599
Q354	B-5	D601
Q356	C-6	D601
Q357	C-6	D603
Q371	B-5	D604
Q501	F-6	D605
Q502	A-9	D606
Q503	B-10	
Q504	B-10	
Q505	A-10	
Q506	D-9	RV201
Q550	B-1	RV291
Q551	E-2	RV307
Q599	J-5	RV501
Q601	G-15	RV502
		RV504
		RV505
		RV506
		RV507
		RV508
		TP
		TP12
		TP13
		TP15
		TP21
		TP47
		TP82
		TP84
		TP85
		TP86
		TP90
		TP91
		TP92
		TP92C
		TP93
		TP94
		TP95
		TP96
		TP97
		TP98
		TP99

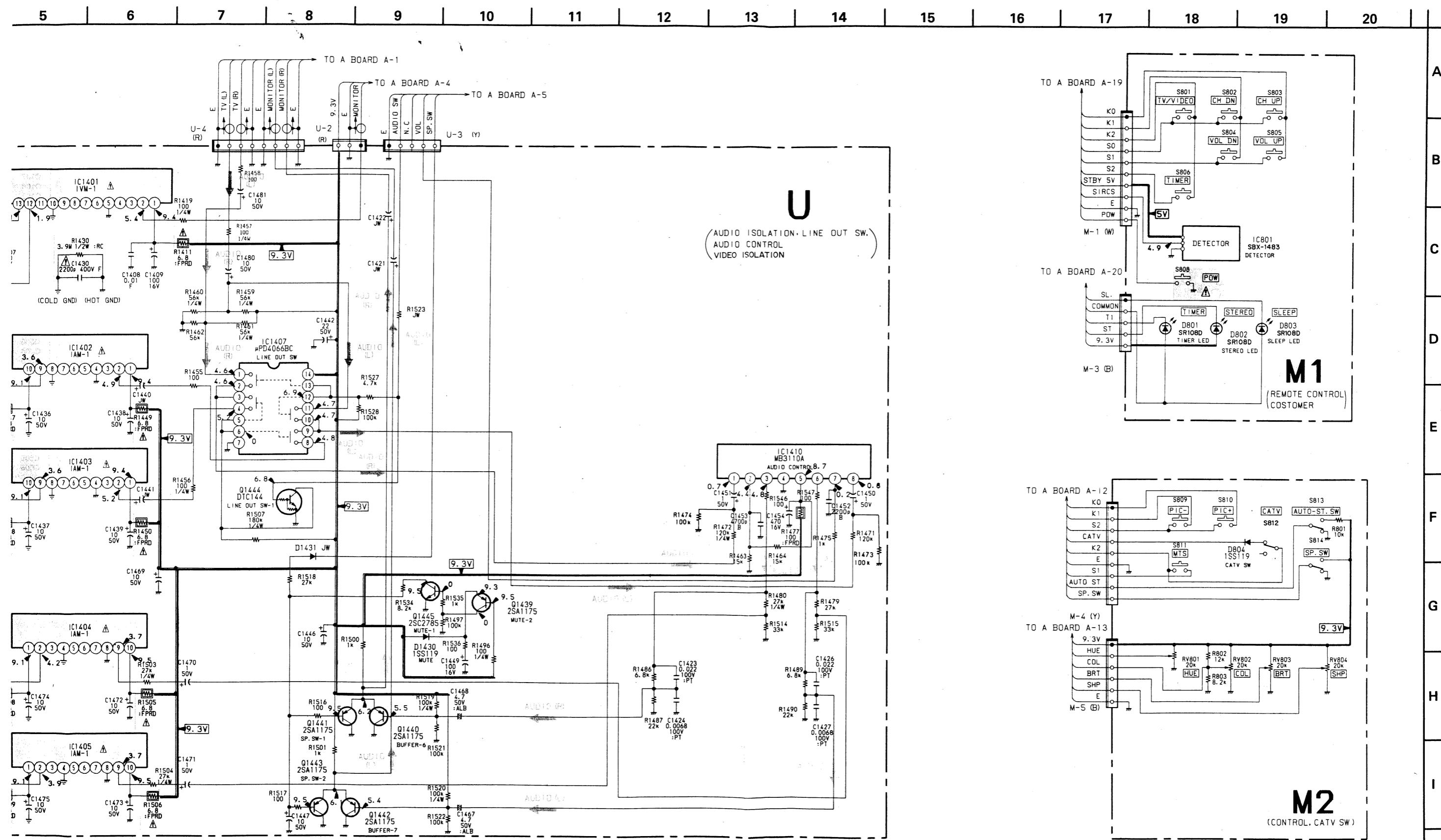
— C Board —



NOTE:

NOTE: The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



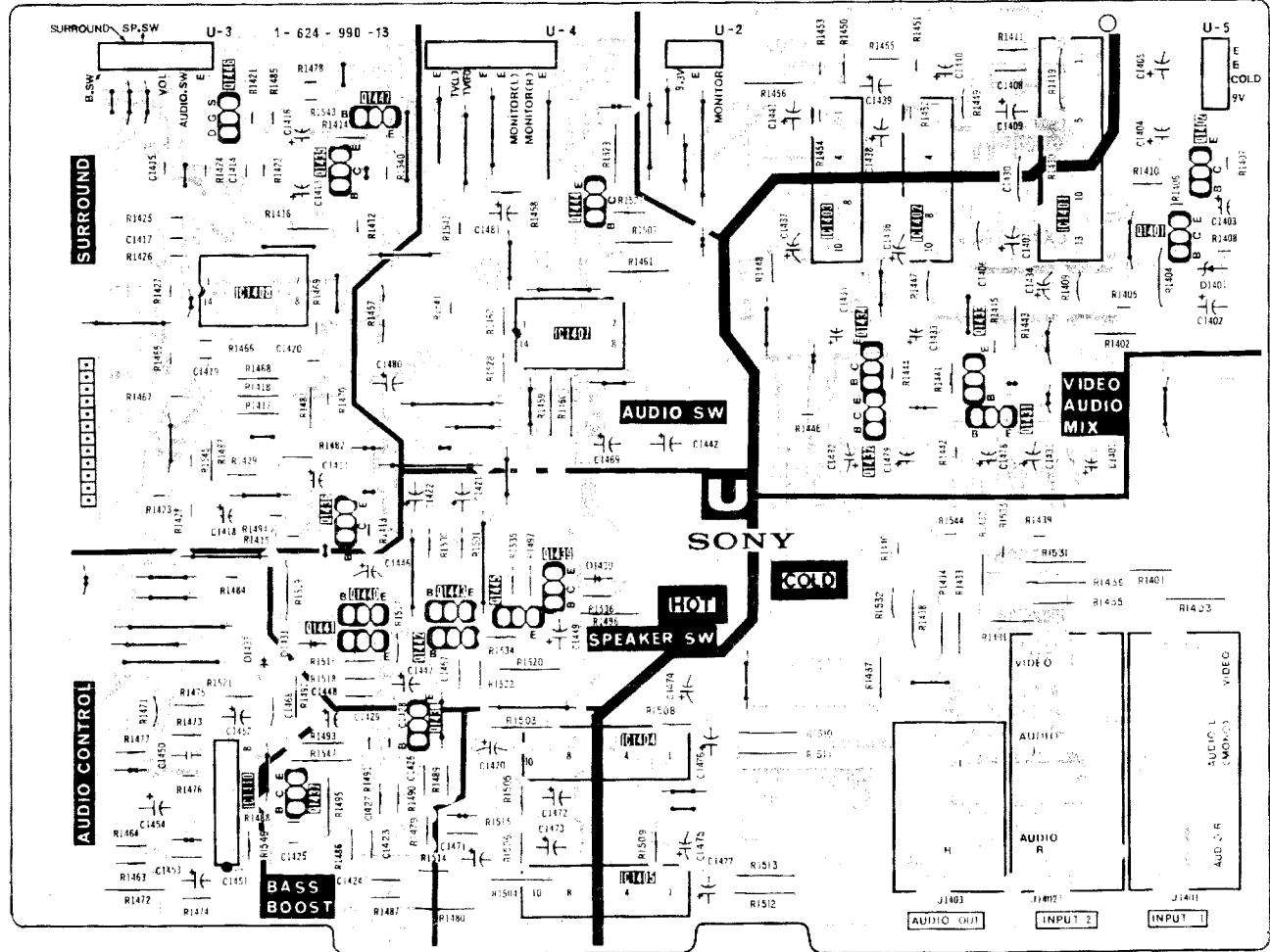


U AUDIO ISOLATION, LINE SW,
AUDIO CONTROL,
VIDEO ISOLATION

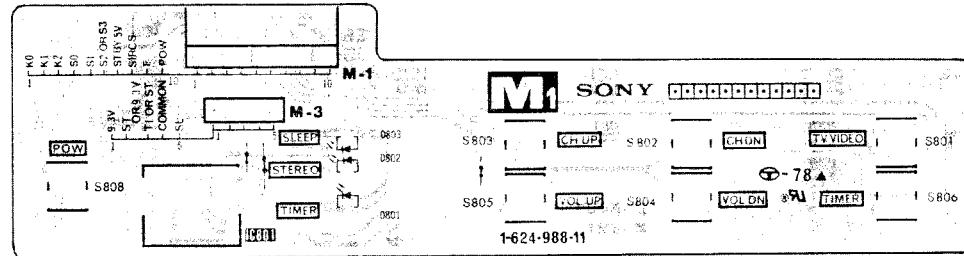
MI REMOTE CONTROL
COSTUMER

M2 CONTROL
CATV SW

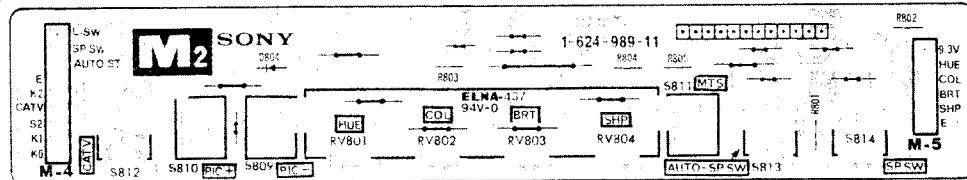
— U Board — — Conductor Side —



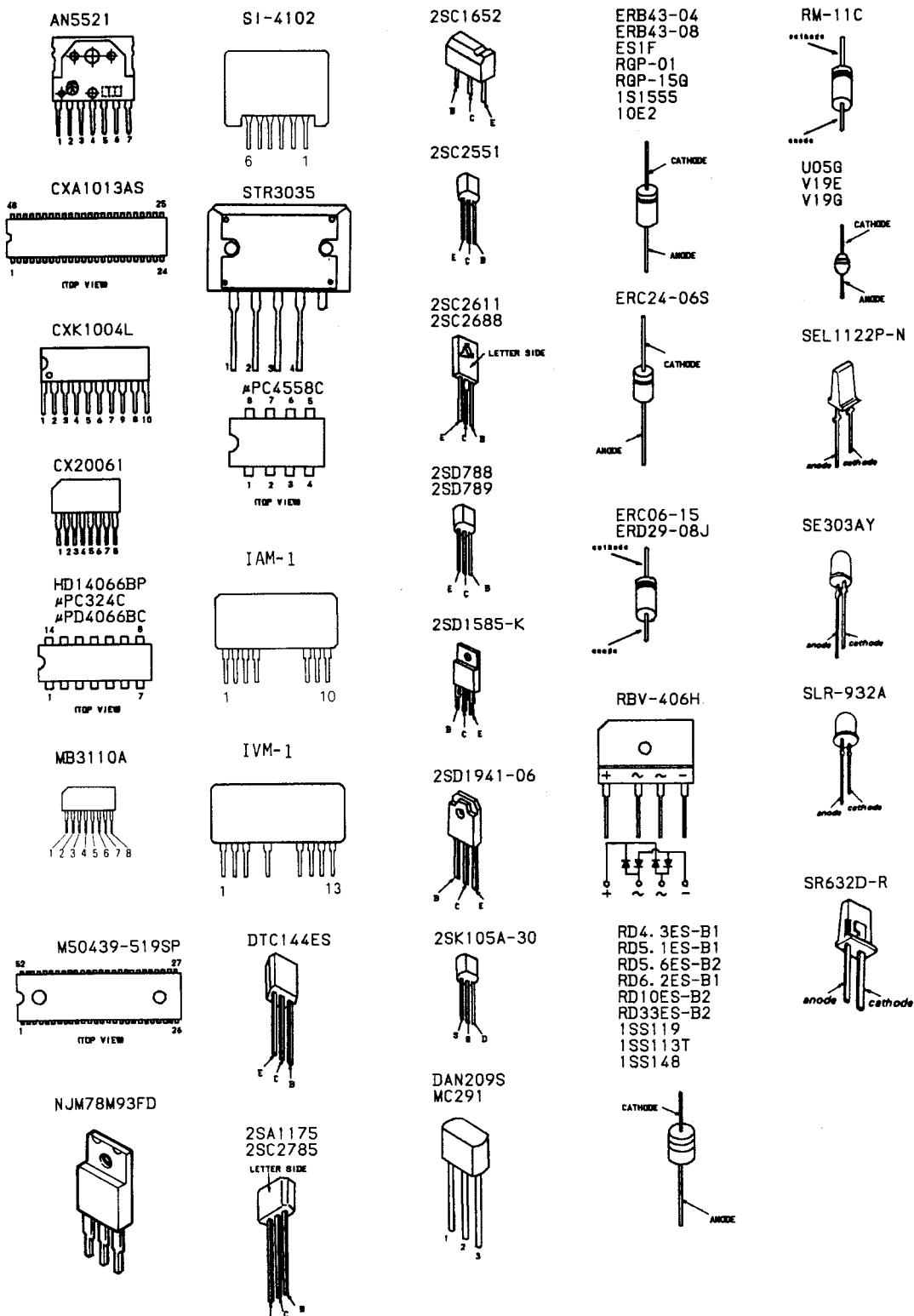
– M1 Board –



– M2 Board –



6-5. SEMICONDUCTORS



SECTION 7
EXPLODED VIEWS

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

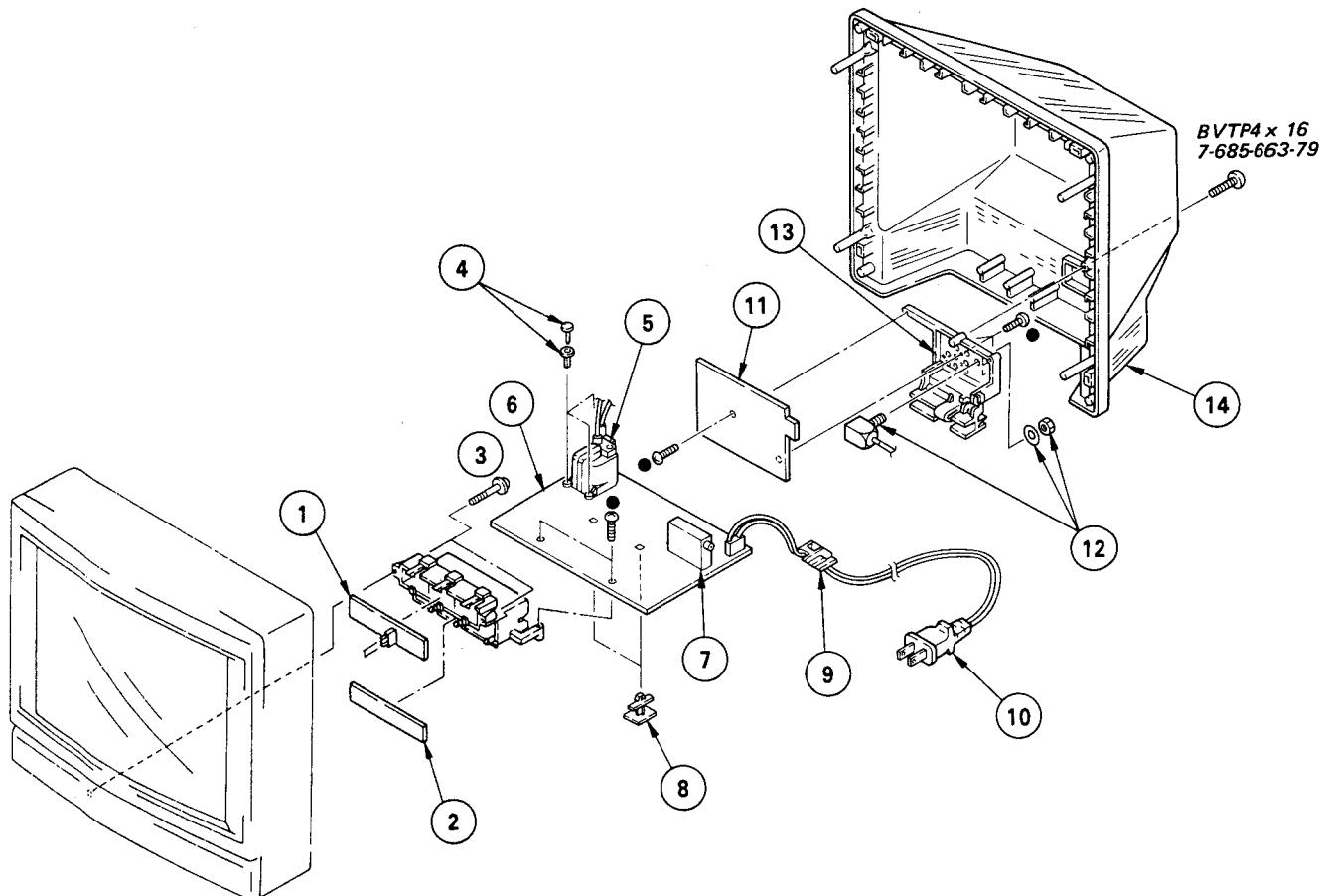
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark \triangle are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. REAR COVER

●: BVTP3 x 12 7-685-648-79

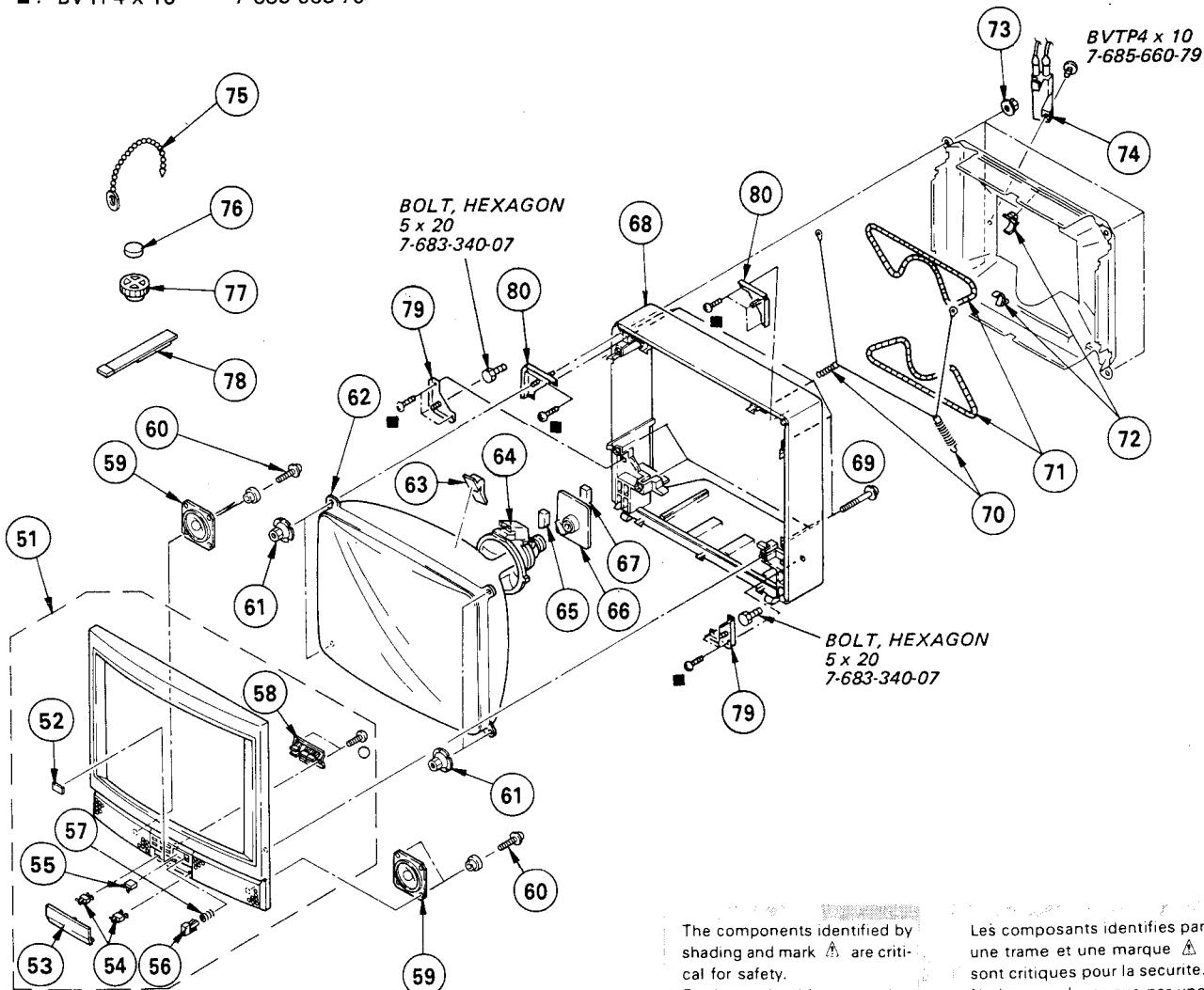


No.	Part No.	Description	Remark
1	*1-624-988-11	M1 BOARD	
2	*1-624-989-11	M2 BOARD	
3	4-319-520-11	SCREW, SPECIAL (+FW4X30)	
4	3-531-576-31	RIVET (DIA. 3), NYLON	
5	\triangle 1-439-372-13	TRANSFORMER ASSY, FLYBACK	
6	*A-1296-397-A	A BOARD, COMPLETE	
7	\triangle 1-463-771-11	TUNER, ET (BTP-201A)	

No.	Part No.	Description	Remark
8	*4-376-053-01	ANCHOR, PC BOARD	
9	\triangle 4-388-328-01	GROMMET, AC CORD	
10	\triangle 1-559-396-11	CORD, POWER	
11	*A-1394-132-A	U BOARD, COMPLETE	
12	\triangle 1-536-591-61	BLOCK, ANTENNA (USA ONLY)	
	\triangle 1-536-902-21	ANTENNA BLOCK (CND ONLY)	
13	4-388-413-01	TERMINAL BOARD, ANTENNA	
14	4-388-418-01	COVER, REAR	

7-2. PICTURE TUBE

- : BVTP3 x 16 7-685-650-79
■: BVTP4 x 16 7-685-663-79



No.	Part No.	Description	Remark
51	X-4388-493-1	BEZEL ASSY (FOR BLACK)	52-58
	X-4388-493-2	BEZEL ASSY (FOR TRADITIONAL OAK) (USA ONLY)	52-58
52	4-388-403-11	PLATE, TRANSPARENT	
53	4-388-409-01	DOOR, CONTROL	
54	3-703-035-11	SHAFT, LID	
55	4-386-710-01	CATCHER, PUSH	
56	4-388-407-01	BUTTON (B), POWER	
57	3-561-888-02	SPRING, COMPRESSION	
58	4-388-411-01	BUTTON (B), MULTI	
59	1-503-918-11	SPEAKER	
60	4-388-477-01	SCREW (3X16), TAPPING	
61	4-376-980-01	NUT, SPECIAL, PICTURE TUBE	
62	\triangle A.8-737-753-05	PICTURE TUBE (A68JMT50X)	
63	3-703-961-01	SPACER, DY	
64	\triangle A.1-451-275-11	DEFLECTION YOKE (SY-158)	

No.	Part No.	Description	Remark
65	*4-379-167-01	COVER (MAIN), CV	
66	*A-1330-838-A	C BOARD, COMPLETE	
67	*4-379-160-01	COVER (REAR LID), CV	
68	4-388-417-01	CABINET (FOR BLACK)	
	4-388-417-11	CABINET (TRADITIONAL OAK)(USA ONLY)	
	4-388-417-61	CABINET (WHITE)(USA ONLY)	
69	4-319-520-11	SCREW, SPECIAL (+PW4X30)	
70	4-369-318-00	SPRING, TENSION	
71	\triangle 1-426-350-11	COIL, DEMAGNETIZATION	
72	*4-371-629-01	STOPPER, WIRE	
73	4-306-034-00	FLANGE NUT, (B) 5MM	
74	A.1-230-940-31	RESISTOR ASSY, HIGH-VOLTAGE	
75	4-308-870-00	CLIP, LEAD WIRE	
76	1-452-032-00	MAGNET,DISK; 10MM \varnothing	
77	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM \varnothing	
78	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
79	*4-376-989-01	BRACKET (E), PICTURE TUBE	
	* 4-379-197-01	BRACKET (H), PICTURE TUBE	

SECTION 8
ELECTRICAL PARTS LIST

A

NOTE:

The components identified by shading and mark  are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

MF : μ F, PF : $\mu\mu$ F MMH : mH, UH : μ H

- The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- * : Selected to yield optimum performance.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK		
	*A-1296-397-A	A BOARD, COMPLETE	*****	C135	1-102-074-00	CERAMIC	0.001MF	10%	50V
				C136	1-124-499-11	ELECT	1MF	20%	50V
	*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P		C137	1-124-499-11	ELECT	1MF	20%	50V
	*4-341-751-01	EYEBLET		C139	1-124-477-11	ELECT	47MF	20%	16V
	*4-341-752-01	EYEBLET		C140	1-102-121-00	CERAMIC	0.0022MF	10%	50V
	*4-376-533-01	CASE (MAIN), SHIELD		C141	1-124-925-11	ELECT	2.2MF	20%	50V
	*4-376-535-01	CASE (BOTTOM), SHIELD		C143	1-106-367-00	MYLAR	0.01MF	10%	100V
	<CONNECTOR>			C144	1-102-963-00	CERAMIC	33PF	5%	50V
A1	*1-566-060-11	PIN, CONNECTOR 8P		C201	1-126-101-11	ELECT	100MF	20%	16V
A2	*1-506-348-99	PIN, CONNECTOR 3P		C202	1-124-631-11	ELECT	47MF	20%	16V
A3	*1-560-124-00	PLUG, CONNECTOR (2.5MM) 4P		C203	1-124-631-11	ELECT	47MF	20%	16V
A4	*1-566-055-11	PIN, CONNECTOR 3P		C204	1-102-121-00	CERAMIC	0.0022MF	10%	50V
A5	*1-566-057-11	PIN, CONNECTOR 5P		C206	1-124-499-11	ELECT	1MF	20%	50V
A6	*1-566-054-11	PIN, CONNECTOR 2P		C211	1-124-477-11	ELECT	47MF	20%	16V
A7	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P		C214	1-123-875-11	ELECT	10MF	20%	50V
A8	*1-566-058-11	PIN, CONNECTOR 6P		C215	1-123-875-11	ELECT	10MF	20%	50V
A9	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P		C250	1-124-910-11	ELECT	47MF	20%	100V
A10	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		C251	1-124-667-11	ELECT	10MF	20%	100V
A11	*1-566-057-11	PIN, CONNECTOR 5P		C252	1-124-925-11	ELECT	2.2MF	20%	100V
A12	*1-566-061-11	PIN, CONNECTOR 9P		C253	1-124-799-11	ELECT	2.2MF	20%	160V
A13	*1-566-058-11	PIN, CONNECTOR 6P		C254	1-124-925-11	ELECT	2.2MF	20%	100V
A14	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		C255	1-124-910-11	ELECT	47MF	20%	50V
A15	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P		C291	1-124-910-11	ELECT	47MF	20%	50V
A17	*1-566-054-11	PIN, CONNECTOR 2P		C292	1-124-667-11	ELECT	10MF	20%	100V
A19	*1-566-062-11	PIN, CONNECTOR 10P		C293	1-124-925-11	ELECT	2.2MF	20%	100V
A20	*1-566-057-11	PIN, CONNECTOR 5P		C294	1-124-799-11	ELECT	2.2MF	20%	160V
DY1	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P		C295	1-124-925-11	ELECT	2.2MF	20%	100V
	<CAPACITOR>			C296	1-124-910-11	ELECT	47MF	20%	50V
C101	1-123-875-11	ELECT	10MF	C301	1-124-902-00	ELECT	0.47MF	20%	50V
C102	1-126-233-11	ELECT	22MF	C302	1-102-961-00	CERAMIC	27PF	5%	50V
C103	1-124-360-00	ELECT	1000MF	C303	1-126-101-11	ELECT	100MF	20%	16V
C104	1-126-101-11	ELECT	100MF	C305	1-124-902-00	ELECT	0.47MF	20%	50V
C107	1-101-361-00	CERAMIC	150PF	C309	1-124-499-11	ELECT	1MF	20%	50V
C108	1-101-361-00	CERAMIC	150PF	C312	1-102-951-00	CERAMIC	15PF	5%	50V
C109	1-124-927-11	ELECT	4.7MF	C315	1-126-320-11	ELECT	10MF	20%	16V
C110	1-124-927-11	ELECT	4.7MF	C316	1-124-766-00	ELECT	0.1MF	20%	50V
C114	1-123-875-11	ELECT	10MF	C317	1-124-282-00	ELECT	22MF	20%	16V
C115	1-162-205-31	CERAMIC	18PF	C318	1-102-074-00	CERAMIC	0.001MF	10%	50V
C116	1-124-472-11	ELECT	470MF	C321	1-102-129-00	CERAMIC	0.01MF	10%	50V
C118	1-106-367-00	MYLAR	0.01MF	C322	1-123-875-11	ELECT	10MF	20%	50V
C120	1-106-383-00	MYLAR	0.047MF	C330	1-124-120-11	ELECT	220MF	20%	16V
C121	1-124-477-11	ELECT	47MF	C331	1-126-101-11	ELECT	100MF	20%	16V
C122	1-124-963-11	ELECT	33MF	C332	1-124-925-11	ELECT	2.2MF	20%	50V
C126	1-124-902-00	ELECT	0.47MF	C355	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C127	1-102-963-00	CERAMIC	33PF	C356	1-126-233-11	ELECT	22MF	20%	25V
C128	1-102-965-00	CERAMIC	39PF	C361	1-124-902-00	ELECT	0.47MF	20%	50V
C132	1-102-965-00	CERAMIC	39PF	C364	1-106-367-00	MYLAR	0.01MF	10%	100V
C133	1-102-964-00	CERAMIC	36PF	C365	1-102-978-00	CERAMIC	220PF	5%	50V
				C366	1-106-367-00	MYLAR	0.01MF	10%	100V
				C367	1-124-480-11	ELECT	470MF	20%	25V

A

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK					
C501	1-126-101-11	ELECT	100MF	20%	16V	C596	1-136-558-11	FILM	0.0039MF	10%	630V	
C502	1-106-363-00	MYLAR	0.0068MF	10%	100V	C597	1-124-484-11	ELECT	220MF	20%	35V	
C503	1-124-499-11	ELECT	1MF	20%	50V	C598	1-124-963-11	ELECT	33MF	20%	16V	
C504	1-106-385-00	MYLAR	0.056MF	10%	100V	C599	1-124-120-11	ELECT	220MF	20%	25V	
C505	1-106-363-00	MYLAR	0.0068MF	10%	100V	C601	A. 1-108-745-52	MYLAR	0.22MF	20%	125V	
C507	1-102-114-00	CERAMIC	470PF	10%	50V	C602	1-125-457-11	ELECT(BLOCK)	560MF	200V		
C508	1-101-006-00	CERAMIC	0.047MF	50V		C603	1-161-830-00	CERAMIC	0.0047MF	500V		
C509	1-101-006-00	CERAMIC	0.047MF	50V		C604	1-161-830-00	CERAMIC	0.0047MF	500V		
C510	1-106-367-00	MYLAR	0.01MF	10%	100V	C605	1-123-948-00	ELECT	22MF	20%	250V	
C511	1-106-379-12	MYLAR	0.033MF	10%	100V	C606	1-126-176-11	ELECT	220MF	20%	10V	
C512	1-124-925-11	ELECT	2.2MF	20%	50V	C607	1-161-830-00	CERAMIC	0.0047MF	500V		
C513	1-124-499-11	ELECT	1MF	20%	50V	C615	1-124-046-00	ELECT	10MF	20%	160V	
C514	1-123-875-11	ELECT	10MF	20%	50V	C616	1-124-046-00	ELECT	10MF	20%	160V	
C515	1-124-464-11	ELECT	0.22MF	20%	50V	C617	1-124-046-00	ELECT	10MF	20%	160V	
C516	1-124-477-11	ELECT	47MF	20%	16V							
C517	1-124-499-11	ELECT	1MF	20%	50V							
C518	1-102-125-00	CERAMIC	0.0047MF	10%	50V							
C520	1-124-277-11	ELECT	4.7MF	20%	35V							
C521	1-102-978-00	CERAMIC	220PF	5%	50V	CM301	1-464-720-11	FILTER BLOCK, COM (CRB-1)				
C522	1-102-824-00	CERAMIC	470PF	5%	50V							
C530	1-124-277-11	ELECT	4.7MF	20%	35V							
C531	1-126-233-11	ELECT	22MF	20%	50V							
C532	1-126-320-11	ELECT	10MF	20%	16V	CP008	1-233-147-11	COMPOSITION CIRCUIT BLOCK				
C534	1-124-122-11	ELECT	100MF	20%	50V	CP009	1-233-145-11	COMPOSITION CIRCUIT BLOCK				
C535	1-102-030-00	CERAMIC	330PF	10%	500V	CP102	1-233-117-11	COMPOSITION CIRCUIT BLOCK				
C536	1-124-910-11	ELECT	47MF	20%	50V	CP103	1-236-137-11	NETWORK, RES, THICK FILM				
C537	1-106-359-00	MYLAR	0.0047MF	10%	100V	CP104	1-233-147-11	COMPOSITION CIRCUIT BLOCK				
C538	1-106-220-00	MYLAR	0.1MF	10%	100V	CP107	1-233-146-11	COMPOSITION CIRCUIT BLOCK				
C539	1-123-382-00	ELECT	3.3MF	20%	50V	CP108	1-233-118-11	COMPOSITION CIRCUIT BLOCK				
C540	1-123-875-11	ELECT	10MF	20%	50V	CP109	1-233-117-11	COMPOSITION CIRCUIT BLOCK				
C541	1-124-910-11	ELECT	47MF	20%	50V	CP112	1-236-077-11	NETWORK, RES, THICK FILM				
C542	1-124-517-11	ELECT	470MF	10%	50V	CP301	1-236-078-11	NETWORK, RES, THICK FILM				
C543	1-123-875-11	ELECT	10MF	20%	50V							
C544	1-124-927-11	ELECT	4.7MF	20%	50V							
C546	1-106-343-00	MYLAR	0.001MF	10%	100V							
C547	1-106-347-00	MYLAR	0.0015MF	10%	100V	D101	8-719-110-78	DIODE RD33ES-B2				
C548	1-102-212-00	CERAMIC	820PF	10%	500V	D112	8-719-911-19	DIODE ISS119				
C549	1-126-105-11	ELECT	1000MF	20%	35V	D113	8-719-911-19	DIODE ISS119				
C550	1-124-902-00	ELECT	0.47MF	20%	50V	D114	8-719-911-19	DIODE ISS119				
C551	1-102-114-00	CERAMIC	470PF	10%	50V	D115	8-719-109-74	DIODE RD4.3BS-B1				
C552	1-162-115-00	CERAMIC	330PF	10%	2KV	D116	8-719-911-19	DIODE ISS119				
C553	1-102-244-00	CERAMIC	220PF	10%	500V	D117	8-719-109-89	DIODE RD5.6ES-B2				
C554	1-162-116-00	CERAMIC	680PF	10%	2KV	D118	8-719-911-19	DIODE ISS119				
C555	1-106-371-00	MYLAR	0.015MF	10%	100V	D119	8-719-911-19	DIODE ISS119				
C557	1-124-494-00	ELECT	33MF		160V	D120	8-719-911-19	DIODE ISS119				
C558	1-123-947-00	ELECT	10MF	20%	250V	D121	8-719-911-19	DIODE ISS119				
C559	1-106-395-00	MYLAR	0.15MF	10%	200V	D122	8-719-911-19	DIODE ISS119				
C560	1-136-113-00	FILM	2MF	5%	200V	D123	8-719-911-19	DIODE ISS119				
C561	1-124-634-11	ELECT	1MF	20%	250V	D125	8-719-911-19	DIODE ISS119				
C562	1-102-228-00	CERAMIC	470PF	10%	500V	D128	8-719-911-19	DIODE ISS119				
C563	A. 1-136-732-11	FILM	0.021MF	3%	1.4KV	D350	8-719-911-19	DIODE ISS119				
C564	1-136-124-00	FILM	0.56MF	5%	400V	D351	8-719-911-19	DIODE ISS119				
C565	A. 1-136-316-51	FILM	0.056MF	5%	630V	D505	8-719-911-19	DIODE ISS119				
C566	1-124-045-00	ELECT	4.7MF	20%	50V	D506	8-719-911-19	DIODE ISS119				
C567	1-162-318-11	CERAMIC	0.001MF	10%	500V	D508	8-719-200-02	DIODE 10E2				
C568	1-106-383-00	MYLAR	0.047MF	10%	100V	D509	8-719-911-19	DIODE ISS119				
C569	1-106-383-00	MYLAR	0.047MF	10%	200V	D510	8-719-911-19	DIODE ISS119				
C570	1-162-114-00	CERAMIC	0.0047MF		2KV	D511	8-719-971-20	DIODE ERC38-06				
C571	1-106-383-00	MYLAR	0.047MF	10%	200V	D512	8-719-945-80	DIODE ERC06-15S				
C572	1-123-875-11	ELECT	10MF	20%	50V	D513	8-719-945-80	DIODE ERC06-15S				
C574	1-106-220-00	MYLAR	0.1MF	10%	100V	D514	8-719-900-26	DIODE ERD29-08J				
C575	1-162-116-00	CERAMIC	680PF	10%	2KV	D515	8-719-200-02	DIODE 10E2				
C594	1-124-557-11	ELECT	1000MF	20%	25V	D516	8-719-200-02	DIODE 10E2				
C595	1-102-212-00	CERAMIC	820PF	10%	500V	D517	8-719-300-33	DIODE RU-3AM				
						D518	8-719-300-65	DIODE ES1F				

A

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK						
D519	8-719-300-65	DIODE ES1F		NL501	1-519-108-99	LAMP, NEON							
D597	8-719-901-58	DIODE RGP15J											
D598	8-719-300-70	DIODE RH-1C											
D599	8-719-110-17	DIODE RD10ES-B2											
D601 A	8-719-305-07	DIODE RBV-406H											
D602	8-719-200-02	DIODE 10E2		PM501	1-235-963-11	PROTECTOR MODULE (PM-9)							
D603	8-719-304-63	DIODE RM11C											
D604	8-719-304-63	DIODE RM11C											
D605	8-719-109-84	DIODE RD5.1ES-B1											
D606	8-719-200-02	DIODE 10E2											
<FUSE>													
F601 A	1-532-509-11	FUSE, GLASS TUBE 6.3A/125V		Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE							
	1-533-190-11	CLIP, FUSE; F601		Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE							
F602 A	1-532-742-11	FUSE, GLASS TUBE 1.6A/125V		Q106	8-729-119-76	TRANSISTOR 2SA1175-HFE							
	*1-533-189-11	HOLDER, FUSE		Q108	8-729-119-78	TRANSISTOR 2SC2785-HFE							
<IC>													
IC101	8-759-605-39	IC M50439-519SP		Q109	8-729-119-76	TRANSISTOR 2SA1175-HFE							
IC102	8-759-803-24	IC CXK1004L		Q110	8-729-119-78	TRANSISTOR 2SC2785-HFE							
IC201	8-749-900-15	IC SI-4102		Q112	8-729-378-92	TRANSISTOR 2SD789-4							
IC202	8-749-900-15	IC SI-4102		Q113	8-729-119-76	TRANSISTOR 2SA1175-HFE							
IC203	8-752-006-12	IC CX20061		Q114	8-729-119-78	TRANSISTOR 2SC2785-HFE							
IC301	8-752-031-72	IC CXA1013AS		Q115	8-729-119-78	TRANSISTOR 2SC2785-HFE							
IC303	8-759-982-37	IC RC78M93FD		Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE							
IC501	8-759-402-35	IC AN5521		Q119	8-729-119-78	TRANSISTOR 2SC2785-HFE							
IC502	8-759-945-58	IC RC4558P		Q120	8-729-119-78	TRANSISTOR 2SC2785-HFE							
IC601 A	8-749-930-35	IC STR3035		Q121	8-729-119-78	TRANSISTOR 2SC2785-HFE							
	4-369-267-01	SPACER, MICA; IC601		Q122	8-729-119-78	TRANSISTOR 2SC2785-HFE							
MM201	8-741-156-80	IC SBX1568-51		Q203 A	8-729-378-88	TRANSISTOR 2SD788-4							
<IF BLOCK>													
IF201	1-464-755-11	IF BLOCK (IFE-450)		Q205	8-729-119-78	TRANSISTOR 2SC2785-HFE							
<COIL>													
L101	1-410-482-31	INDUCTOR	100UH	Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE							
L103	1-410-482-31	INDUCTOR	100UH	Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE							
L105	1-408-404-00	INDUCTOR	3.9UH	Q303	8-729-119-78	TRANSISTOR 2SC2785-HFE							
L106	1-408-404-00	INDUCTOR	3.9UH	Q304	8-729-119-78	TRANSISTOR 2SC2785-HFE							
L107	1-410-482-31	INDUCTOR	100UH	Q305	8-729-119-76	TRANSISTOR 2SA1175-HFE							
L108	1-408-411-00	INDUCTOR	15UH	Q311	8-729-119-78	TRANSISTOR 2SC2785-HFE							
L109	1-408-411-00	INDUCTOR	15UH	Q354	8-729-119-76	TRANSISTOR 2SA1175-HFE							
L203	1-408-408-00	INDUCTOR	8.2UH	Q356	8-729-119-78	TRANSISTOR 2SC2785-HFE							
L301	1-408-411-00	INDUCTOR	15UH	Q357	8-729-119-78	TRANSISTOR 2SC2785-HFE							
L501	1-408-226-00	INDUCTOR	82UH	Q371	8-729-119-78	TRANSISTOR 2SC2785-HFE							
<NEON LAMP>													
L502	1-408-938-00	INDUCTOR	22UH	Q501	8-729-107-26	TRANSISTOR 2SD1585-K							
L504	1-459-313-00	COIL WITH CORE (HWC)		Q502	8-729-119-76	TRANSISTOR 2SA1175-HFE							
L505	1-459-104-00	COIL, DUST CORE		Q503	8-729-119-76	TRANSISTOR 2SA1175-HFE							
L506	1-407-365-00	COIL, CHOKE		Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE							
L507	1-408-349-00	COIL, CHOKE		Q505	8-729-119-76	TRANSISTOR 2SA1175-HFE							
L508	1-408-239-00	INDUCTOR	4.7MMH	Q506	8-729-119-78	TRANSISTOR 2SC2785-HFE							
L510 A	1-459-224-13	HLC		Q550	8-729-119-80	TRANSISTOR 2SC2688-LK							
L511	1-459-075-00	COIL, DYNAMIC CONVERSION CHOKE		Q551	8-729-304-50	TRANSISTOR 2SD1941-06							
L516	1-408-225-00	INDUCTOR	3.3UH	*4-378-214-01									
L601 A	1-408-225-21	INDUCTOR	3.3UH	Q599	8-729-378-92	HOLDER, TR; Q551							
L602 A	1-408-225-21	INDUCTOR	3.3UH	Q601	8-729-255-12	TRANSISTOR 2SD789-4							
L609	1-410-459-11	INDUCTOR	1.2UH	Q601									
<RESISTOR>								R001	1-249-421-11	CARBON	2.2K	5%	1/4W
<NEON LAMP>								R002	1-249-414-11	CARBON	560	5%	1/4W
<NEON LAMP>								R004	1-249-414-11	CARBON	560	5%	1/4W
<NEON LAMP>								R005	1-249-414-11	CARBON	560	5%	1/4W
<NEON LAMP>								R006	1-249-414-11	CARBON	560	5%	1/4W
<NEON LAMP>								R007	1-249-414-11	CARBON	560	5%	1/4W
<NEON LAMP>								R008	1-249-414-11	CARBON	560	5%	1/4W
<NEON LAMP>								R009	1-249-414-11	CARBON	560	5%	1/4W
<NEON LAMP>								R014	1-249-421-11	CARBON	2.2K	5%	1/4W
<NEON LAMP>								R015	1-249-421-11	CARBON	2.2K	5%	1/4W
<NEON LAMP>								R016	1-249-421-11	CARBON	2.2K	5%	1/4W
<NEON LAMP>								R017	1-249-421-11	CARBON	2.2K	5%	1/4W
<NEON LAMP>								R018	1-249-416-11	CARBON	820	5%	1/4W
<NEON LAMP>								R019	1-249-429-11	CARBON	10K	5%	1/4W
<NEON LAMP>								R020	1-249-429-11	CARBON	10K	5%	1/4W

A

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The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R021	1-249-434-11	CARBON	27K 5% 1/4W	R161	1-249-424-11	CARBON	3.9K 5% 1/4W
R022	1-249-414-11	CARBON	560 5% 1/4W	R162	1-249-433-11	CARBON	22K 5% 1/4W
R024	1-249-421-11	CARBON	2.2K 5% 1/4W	R163	1-249-433-11	CARBON	22K 5% 1/4W
R025	1-249-421-11	CARBON	2.2K 5% 1/4W	R164	1-249-433-11	CARBON	22K 5% 1/4W
R026	1-249-421-11	CARBON	2.2K 5% 1/4W	R165	1-249-433-11	CARBON	22K 5% 1/4W
R027	1-249-421-11	CARBON	2.2K 5% 1/4W	R166	1-249-429-11	CARBON	10K 5% 1/4W
R028	1-249-423-11	CARBON	3.3K 5% 1/4W	R167	1-247-903-00	CARBON	1M 5% 1/4W
R029	1-249-414-11	CARBON	560 5% 1/4W	R170	1-249-415-11	CARBON	680 5% 1/4W
R030	1-249-414-11	CARBON	560 5% 1/4W	R171	1-249-423-11	CARBON	3.3K 5% 1/4W
R032	1-249-414-11	CARBON	560 5% 1/4W	R172	1-249-434-11	CARBON	27K 5% 1/4W
R034	1-249-426-11	CARBON	5.6K 5% 1/4W	R174	1-247-889-00	CARBON	270K 5% 1/4W
R035	1-249-417-11	CARBON	1K 5% 1/4W	R175	1-249-441-11	CARBON	100K 5% 1/4W
R036	1-249-416-11	CARBON	820 5% 1/4W	R176	1-249-441-11	CARBON	100K 5% 1/4W
R037	1-249-416-11	CARBON	820 5% 1/4W	R180	1-249-426-11	CARBON	5.6K 5% 1/4W
R038	1-249-414-11	CARBON	560 5% 1/4W	R181	1-249-416-11	CARBON	820 5% 1/4W
R040	1-249-431-11	CARBON	15K 5% 1/4W	R182	1-249-415-11	CARBON	680 5% 1/4W
R044	1-249-414-11	CARBON	560 5% 1/4W	R185	1-247-725-11	CARBON	10K 5% 1/4W
R101	1-249-426-11	CARBON	5.6K 5% 1/4W	R201	1-249-405-11	CARBON	100 5% 1/4W
R102	1-249-417-11	CARBON	1K 5% 1/4W	R202	1-247-700-11	CARBON	100 5% 1/4W
R103	1-215-923-00	METAL OXIDE	10K 5% 3W F	R204	1-249-435-11	CARBON	33K 5% 1/4W
R104	1-247-721-11	CARBON	4.7K 5% 1/4W	R207	1-249-435-11	CARBON	33K 5% 1/4W
R105	1-249-437-11	CARBON	47K 5% 1/4W	R208	1-249-425-11	CARBON	4.7K 5% 1/4W
R106	1-249-433-11	CARBON	22K 5% 1/4W	R209	1-249-417-11	CARBON	1K 5% 1/4W
R108	1-249-425-11	CARBON	4.7K 5% 1/4W	R210	1-247-700-11	CARBON	100 5% 1/4W
R109	1-249-409-11	CARBON	220 5% 1/4W	R211	1-249-433-11	CARBON	22K 5% 1/4W
R113	1-249-417-11	CARBON	1K 5% 1/4W	R212	1-249-419-11	CARBON	1.5K 5% 1/4W
R115	1-249-421-11	CARBON	2.2K 5% 1/4W	R213	1-249-411-11	CARBON	330 5% 1/4W
R116	1-249-421-11	CARBON	2.2K 5% 1/4W	R214	1-249-411-11	CARBON	330 5% 1/4W
R117	1-249-421-11	CARBON	2.2K 5% 1/4W	R217	1-247-713-11	CARBON	1K 5% 1/4W
R118	1-249-433-11	CARBON	22K 5% 1/4W	R221	1-249-414-11	CARBON	560 5% 1/4W
R119	1-247-713-11	CARBON	1K 5% 1/4W	R229	1-249-411-11	CARBON	330 5% 1/4W
R120	1-249-437-11	CARBON	47K 5% 1/4W	R230	1-249-411-11	CARBON	330 5% 1/4W
R121	1-249-434-11	CARBON	27K 5% 1/4W	R231	1-247-700-11	CARBON	100 5% 1/4W
R124	1-249-417-11	CARBON	1K 5% 1/4W	R232	1-247-706-11	CARBON	330 5% 1/4W
R125	1-249-417-11	CARBON	1K 5% 1/4W	R233	1-249-411-11	CARBON	330 5% 1/4W
R126	1-249-429-11	CARBON	10K 5% 1/4W	R234	1-249-411-11	CARBON	330 5% 1/4W
R128	1-249-429-11	CARBON	10K 5% 1/4W	R240	1-249-425-11	CARBON	4.7K 5% 1/4W
R131	1-249-412-11	CARBON	390 5% 1/4W	R241	1-249-441-11	CARBON	100K 5% 1/4W
R132	1-249-412-11	CARBON	390 5% 1/4W	R250	1-249-411-11	CARBON	330 5% 1/4W
R133	1-249-429-11	CARBON	10K 5% 1/4W	R251			
R134	1-247-708-11	CARBON	470 5% 1/4W	R252	1-249-430-11	CARBON	12K 5% 1/4W
R136	1-247-709-11	CARBON	100 5% 1/4W	R253	1-249-434-11	CARBON	27K 5% 1/4W
R137	1-249-441-11	CARBON	100K 5% 1/4W	R254	1-249-403-11	CARBON	68 5% 1/4W
R139	1-249-417-11	CARBON	1K 5% 1/4W	R290	1-249-410-11	CARBON	270 5% 1/4W F
R140	1-249-417-11	CARBON	1K 5% 1/4W	R291	1-249-430-11	CARBON	12K 5% 1/4W
R141	1-249-417-11	CARBON	1K 5% 1/4W	R292			
R142	1-249-429-11	CARBON	10K 5% 1/4W	R293	1-249-434-11	CARBON	27K 5% 1/4W
R143	1-249-429-11	CARBON	10K 5% 1/4W	R301	1-215-472-00	METAL	130K 1% 1/6W
R145	1-249-414-11	CARBON	560 5% 1/4W	R302	1-249-437-11	CARBON	47K 5% 1/4W
R146	1-247-713-11	CARBON	1K 5% 1/4W	R304	1-247-889-00	CARBON	270K 5% 1/4W
R147	1-249-416-11	CARBON	820 5% 1/4W	R305	1-249-440-11	CARBON	82K 5% 1/4W
R148	1-249-432-11	CARBON	18K 5% 1/4W	R306	1-249-437-11	CARBON	47K 5% 1/4W
R149	1-249-423-11	CARBON	3.3K 5% 1/4W	R307	1-249-429-11	CARBON	10K 5% 1/4W
R150	1-249-437-11	CARBON	47K 5% 1/4W	R308	1-249-411-11	CARBON	330 5% 1/4W
R151	1-249-429-11	CARBON	10K 5% 1/4W	R309	1-249-411-11	CARBON	330 5% 1/4W
R152	1-249-433-11	CARBON	22K 5% 1/4W	R310	1-249-411-11	CARBON	330 5% 1/4W
R153	1-249-427-11	CARBON	6.8K 5% 1/4W	R315	1-249-417-11	CARBON	1K 5% 1/4W
R154	1-247-889-00	CARBON	270K 5% 1/4W	R316	1-247-706-11	CARBON	330 5% 1/4W
R155	1-249-439-11	CARBON	68K 5% 1/4W	R318	1-249-417-11	CARBON	1K 5% 1/4W
R156	1-249-424-11	CARBON	3.9K 5% 1/4W	R319	1-249-417-11	CARBON	1K 5% 1/4W
R157	1-249-409-11	CARBON	220 5% 1/4W	R320	1-249-417-11	CARBON	1K 5% 1/4W
R158	1-247-889-00	CARBON	270K 5% 1/4W	R323	1-249-427-11	CARBON	6.8K 5% 1/4W
R159	1-249-409-11	CARBON	220 5% 1/4W	R325	1-249-435-11	CARBON	33K 5% 1/4W
R160	1-249-439-11	CARBON	68K 5% 1/4W				

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Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **▲** are critical for safety. Replace only with part number specified.

• The components identified by **■** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

• * : Selected to yield optimum performance.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R328	1-249-414-11	CARBON	560 5% 1/4W	R532	1-249-438-11	CARBON	56K 5% 1/4W
R329	1-249-441-11	CARBON	100K 5% 1/4W	R533	1-249-417-11	CARBON	1K 5% 1/4W
R330	1-249-426-11	CARBON	5.6K 5% 1/4W	R534	1-249-410-11	CARBON	270 5% 1/4W
R333	1-249-429-11	CARBON	10K 5% 1/4W	R535	1-249-419-11	CARBON	1.5K 5% 1/4W F
R334	1-249-413-11	CARBON	470 5% 1/4W	R536	1-247-722-11	CARBON	5.6K 5% 1/4W
R335	1-247-721-11	CARBON	4.7K 5% 1/4W	R537	1-247-726-11	CARBON	33K 5% 1/4W
R340	1-249-427-11	CARBON	6.8K 5% 1/4W	R539	1-215-373-31	METAL	10 1% 1/6W
R341	1-247-717-11	CARBON	2.2K 5% 1/4W	R540	1-249-405-11	CARBON	100 5% 1/4W
R342	1-247-717-11	CARBON	2.2K 5% 1/4W	R541	1-249-429-11	CARBON	10K 5% 1/4W
R344	1-215-894-11	METAL OXIDE	2.2K 5% 2W F	R542	1-249-426-11	CARBON	5.6K 5% 1/4W
R348	1-247-717-11	CARBON	2.2K 5% 1/4W	R543	1-249-434-11	CARBON	27K 5% 1/4W
R349	1-249-417-11	CARBON	1K 5% 1/4W	R544	1-249-429-11	CARBON	10K 5% 1/4W
R350	1-249-437-11	CARBON	47K 5% 1/4W	R545	1-247-754-11	CARBON	1.5K 5% 1/2W
R351	1-247-903-00	CARBON	1M 5% 1/4W	R546	1-249-415-11	CARBON	680 5% 1/4W F
R352	1-247-901-11	CARBON	820K 5% 1/4W	R547	1-249-429-11	CARBON	10K 5% 1/4W
R353	1-249-429-11	CARBON	10K 5% 1/4W	R548	1-249-437-11	CARBON	47K 5% 1/4W
R361	1-249-429-11	CARBON	10K 5% 1/4W	R549	1-249-415-91	CARBON	680 5% 1/4W F
R362	1-216-470-51	METAL OXIDE	18 5% 3W F	R550	1-249-440-11	CARBON	82K 5% 1/4W
R364	1-249-437-11	CARBON	47K 5% 1/4W	R551	1-249-437-11	CARBON	47K 5% 1/4W
R366	1-247-713-11	CARBON	1K 5% 1/4W	R552	1-247-713-11	CARBON	1K 5% 1/4W F
R368	1-249-417-11	CARBON	1K 5% 1/4W	R553	1-249-413-11	CARBON	470 5% 1/4W
R369	1-249-417-11	CARBON	1K 5% 1/4W	R554	1-249-429-11	CARBON	10K 5% 1/4W
R371	1-249-429-11	CARBON	10K 5% 1/4W	R555	1-249-413-11	CARBON	470 5% 1/4W
R375	1-249-434-11	CARBON	27K 5% 1/4W	R556	1-216-371-00	METAL OXIDE	1.5 5% 2W F
R378	1-215-894-11	METAL OXIDE	2.2K 5% 2W F	R557	1-259-871-15	CARBON	6.8M 5% 1/4W
R379	1-215-894-11	METAL OXIDE	2.2K 5% 2W F	R558	1-249-407-11	CARBON	150 5% 1/4W
R380	1-249-419-11	CARBON	1.5K 5% 1/4W F	R559	1-249-417-11	CARBON	1K 5% 1/4W
R382	1-202-830-00	SOLID	10K 10% 1/2W	R560	1-247-719-11	CARBON	3.3K 5% 1/4W
R385	1-249-436-11	CARBON	39K 5% 1/4W	R561	1-247-717-11	CARBON	2.2K 5% 1/4W
R386	1-249-439-11	CARBON	68K 5% 1/4W	R562	1-215-880-00	METAL OXIDE	10 5% 2W F
R387	1-249-462-11	CARBON	22K 5% 1/4W	R563	1-249-436-11	CARBON	39K 5% 1/4W
R389	1-249-414-11	CARBON	560 5% 1/4W	R564	1-249-433-11	CARBON	22K 5% 1/4W
R390	1-247-721-11	CARBON	4.7K 5% 1/4W	R565	1-249-441-11	CARBON	100K 5% 1/4W
R391	1-249-441-11	CARBON	100K 5% 1/4W	R566	1-247-895-00	CARBON	470K 5% 1/4W
R392	1-249-429-11	CARBON	10K 5% 1/4W	R567	1-216-373-51	METAL OXIDE	2.2 5% 2W F
R501	1-216-458-11	METAL OXIDE	1.8K 5% 2W F	R568	1-249-448-51	CARBON	1.2 5% 1/4W F
R502	1-216-458-11	METAL OXIDE	1.8K 5% 2W F	R569	1-249-423-11	CARBON	3.3K 5% 1/4W
R503	1-249-405-11	CARBON	100 5% 1/4W	R570	1-215-918-51	METAL OXIDE	1.5K 5% 3W F
R504	1-249-414-11	CARBON	560 5% 1/4W	R571	1-247-700-11	CARBON	100 5% 1/4W
R505	1-215-472-00	METAL	130K 1% 1/6W	R572	1-249-423-11	CARBON	3.3K 5% 1/4W
R506	1-247-702-11	CARBON	150 5% 1/4W	R573	1-247-722-11	CARBON	5.6K 5% 1/4W F
R507	1-249-426-11	CARBON	5.6K 5% 1/4W	R574	1-216-345-11	METAL OXIDE	0.47 5% 1W F
R508	1-249-437-11	CARBON	47K 5% 1/4W	R575	1-249-434-11	CARBON	27K 5% 1/4W
R509	1-249-434-11	CARBON	27K 5% 1/4W	R576	1-249-389-11	CARBON	4.7 5% 1/4W F
R510	1-249-422-11	CARBON	2.7K 5% 1/4W	R577	1-215-860-11	METAL OXIDE	33 5% 1W
R512	1-249-411-11	CARBON	330 5% 1/4W	R578	1-215-880-91	METAL OXIDE	10 5% 2W F
R513	1-215-472-00	METAL	130K 1% 1/6W	R579	1-249-415-91	CARBON	680 5% 1/4W F
R514	1-215-459-00	METAL	39K 1% 1/6W	R580	1-215-861-91	METAL OXIDE	47 5% 2W F
R515	1-215-441-00	METAL	6.8K 1% 1/6W	R581	1-247-708-11	CARBON	470 5% 1/4W F
R516	1-249-428-11	CARBON	8.2K 5% 1/4W	R582	1-216-450-00	METAL OXIDE	82 5% 2W F
R517	1-247-713-11	CARBON	1K 5% 1/4W	R583	1-216-450-00	METAL OXIDE	82 5% 2W F
R519	1-249-424-11	CARBON	3.9K 5% 1/4W	R584	1-216-458-11	METAL OXIDE	1.8K 5% 2W F
R521	1-247-887-00	CARBON	220K 5% 1/4W	R585	1-216-458-11	METAL OXIDE	1.8K 5% 2W F
R522	1-249-421-11	CARBON	2.2K 5% 1/4W	R586	1-216-429-00	METAL OXIDE	270 5% 1W F
R523	1-249-417-11	CARBON	1K 5% 1/4W	R587	1-216-374-91	METAL OXIDE	1.8K 5% 1W F
R524	1-247-713-11	CARBON	1K 5% 1/4W	R588	1-247-696-11	CARBON	47 5% 1/4W
R525	1-249-419-11	CARBON	1.5K 5% 1/4W	R589	1-249-441-11	CARBON	100K 5% 1/4W
R526	1-249-431-11	CARBON	15K 5% 1/4W	R591	1-216-345-91	METAL OXIDE	0.47 5% 1W F
R527	1-249-417-11	CARBON	1K 5% 1/4W	R592	1-249-448-51	CARBON	1.2 5% 1/4W F
R528	1-249-429-11	CARBON	10K 5% 1/4W	R593	1-216-374-00	METAL OXIDE	2.7 5% 2W F
R529	1-249-423-11	CARBON	3.3K 5% 1/4W	R598	1-249-389-91	CARBON	4.7 5% 1/4W F
R530	1-249-433-11	CARBON	22K 5% 1/4W	R599	1-249-419-11	CARBON	1.5K 5% 1/4W
R531	1-246-535-00	CARBON	390K 5% 1/4W	R601	1-202-726-00	SOLID	3.9M 10% 1/2W

A M1 M2

REF. NO. PART NO.

DESCRIPTION

REMARK

R602	△ 1-205-741-11	WIREWOUND	1.8	5%	10W	F
R605	△ 1-205-702-11	WIREWOUND	220	5%	20W	F
R606	1-247-889-00	CARBON	270K	5%	1/4W	
R610	△ 1-217-224-11	WIREWOUND	100	10%	2W	F
R611	1-215-872-11	METAL OXIDE	3.3K	5%	1W	F
R613	1-249-437-11	CARBON	47K	5%	1/4W	
R614	1-249-425-11	CARBON	4.7K	5%	1/4W	
R615	△ 1-216-463-91	METAL OXIDE	12K	5%	2W	F
R616	△ 1-247-719-51	CARBON	3.3K	5%	1/4W	F
R617	△ 1-249-401-91	CARBON	47	5%	1/4W	F

<VARIABLE RESISTOR>

RV201	1-238-015-11	RES, ADJ, CARBON	4.7K
RV291	1-238-010-11	RES, ADJ, CARBON	330
RV307	1-238-011-11	RES, ADJ, CARBON	470
RV501	1-228-728-00	RES, ADJ, CERAMIC CARBON	100K
RV502	1-238-020-11	RES, ADJ, CARBON	100K

RV504	1-238-017-11	RES, ADJ, CARBON	22K
RV505	1-238-017-11	RES, ADJ, CARBON	22K
RV506	1-238-019-11	RES, ADJ, CARBON	47K
RV507	1-238-010-11	RES, ADJ, CARBON	330
RV508	1-238-012-11	RES, ADJ, CARBON	1K

<RELAY>

RY601A △ 1-515-573-12 RELAY, POWER

<SWITCH>

S501 1-554-186-00 SWITCH, LEVER

<SPARK GAP>

SG501 1-519-422-11 GAP, SPARK

<TRANSFORMER>

T101	1-404-538-11	COIL
T201	△ 1-427-462-11	TRANSFORMER, SOUND OUTPUT
T299	△ 1-427-462-11	TRANSFORMER, SOUND OUTPUT
T501	1-437-079-00	TRANSFORMER, HORIZONTAL DRIVE
T502	△ 1-421-794-11	TRANSFORMER, FERRITE (PMT)

T599	△ 1-421-857-11	TRANSFORMER, FERRITE
T601	△ 1-421-357-31	TRANSFORMER, LINE FILTER

<THERMISTOR>

THP601A △ 1-808-081-13 THERMISTOR, POSITIVE

<CRYSTAL>

X101	1-567-192-11	OSCILLATOR, CERAMIC
X301	1-567-505-11	OSCILLATOR, CRYSTAL

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Replace only with part number specified.

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Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO. PART NO.

DESCRIPTION

REMARK

*1-624-988-11	M1 BOARD	

*1-566-049-11	PIN, CONNECTOR 10P	
*1-566-057-11	PIN, CONNECTOR 5P	
*4-374-987-01	GUIDE, LIGHT	
*4-381-686-01	BRACKET (B), LIGHT GUIDE	
	<DIODE>	
D801	8-719-311-89	DIODE SEL1222R-C
D802	8-719-311-89	HOLDER (3 GANG), LED; D801
D803	8-719-311-89	HOLDER (3 GANG), LED; D802
D804	8-719-311-89	HOLDER (3 GANG), LED; D803
	DIODE SEL1222R-C	

<IC>

IC801 8-741-148-33 IC SBX1483-59

<SWITCH>

S801	1-554-937-11	SWITCH, KEY BOARD
S802	1-554-937-11	SWITCH, KEY BOARD
S803	1-554-937-11	SWITCH, KEY BOARD
S804	1-554-937-11	SWITCH, KEY BOARD
S805	1-554-937-11	SWITCH, KEY BOARD

S806	1-554-937-11	SWITCH, KEY BOARD
S808	△ 1-554-937-11	SWITCH, KEY BOARD (POWER)

*1-624-989-11 M2 BOARD

*1-566-058-11 PIN, CONNECTOR 6P
*1-566-061-11 PIN, CONNECTOR 9P

<DIODE>

D804 8-719-911-19 DIODE ISS119

<RESISTOR>

R801	1-249-429-11	CARBON	10K	5%	1/4W
R802	1-249-430-11	CARBON	12K	5%	1/4W
R803	1-249-428-11	CARBON	8.2K	5%	1/4W

<VARIABLE RESISTOR>

RV801	1-237-999-11	RES, VAR, CARBON	20KX4
RV802	1-237-999-11	RES, VAR, CARBON	20KX4
RV803	1-237-999-11	RES, VAR, CARBON	20KX4
RV804	1-237-999-11	RES, VAR, CARBON	20KX4

<SWITCH>

S809	1-554-303-21	SWITCH, KEY BOARD
S810	1-554-303-21	SWITCH, KEY BOARD
S811	1-554-303-21	SWITCH, KEY BOARD
S812	1-571-399-11	SWITCH, ROTARY
S813	1-571-399-11	SWITCH, ROTARY

Les composants identifies par une trame et une marque  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark  are critical for safety.
Replace only with part number specified.

C U

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*A-1330-838-A	C BOARD, COMPLETE	*****		R718	1-249-405-11	CARBON	100 5% 1/4W
		*****		R719	1-249-418-11	CARBON	1.2K 5% 1/4W
1-526-798-51	SOCKET, PICTURE TUBE			R720	1-249-413-11	CARBON	470 5% 1/4W
*4-379-160-01	COVER (REAR LID), CV			R722	1-206-692-61	METAL OXIDE	15K 5% 2W F
*4-379-167-01	COVER (MAIN), CV			R723	1-249-414-11	CARBON	560 5% 1/4W
	<CONNECTOR>			R725	1-249-422-11	CARBON	2.7K 5% 1/4W
C1	*1-506-371-00	PIN, CONNECTOR 2P		R726	1-249-405-11	CARBON	100 5% 1/4W
C2	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P		R727	1-249-418-11	CARBON	1.2K 5% 1/4W
C3	*1-566-058-11	PIN, CONNECTOR 6P		R728	1-249-413-11	CARBON	470 5% 1/4W
	<CAPACITOR>			R729	1-249-409-11	CARBON	220 5% 1/4W
C701	1-136-601-11	FILM	0.01MF	R730	1-206-692-61	METAL OXIDE	15K 5% 2W F
C702	1-162-115-00	CERAMIC	330PF	R732	1-249-411-11	CARBON	330 5% 1/4W
C704	1-124-915-11	ELECT	10MF	R733	1-249-422-11	CARBON	2.7K 5% 1/4W
C705	1-102-116-00	CERAMIC	680PF				
C706	1-102-116-00	CERAMIC	680PF	R734	1-249-425-11	CARBON	4.7K 5% 1/4W
C707	1-102-116-00	CERAMIC	680PF	R735	1-249-405-11	CARBON	100 5% 1/4W
C708	1-102-110-00	CERAMIC	220PF	R737	1-206-692-61	METAL OXIDE	15K 5% 2W F
C709	1-102-110-00	CERAMIC	220PF	R738	1-202-848-00	SOLID	680K 10% 1/2W
C710	1-102-110-00	CERAMIC	220PF	R739	1-202-838-00	SOLID	100K 10% 1/2W
C711	1-101-004-00	CERAMIC	0.01MF				
C722	1-162-622-11	CERAMIC	330PF	R740	1-202-842-11	SOLID	220K 10% 1/2W
	<DIODE>						
D701	8-719-911-19	DIODE	ISS119				
D702	8-719-911-19	DIODE	ISS119				
D703	8-719-911-19	DIODE	ISS119				
	<COIL>						
L701	1-408-417-00	INDUCTOR	47UH				
	<TRANSISTOR>						
Q701	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q702	8-729-326-11	TRANSISTOR	2SC2611				
Q703	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q704	8-729-326-11	TRANSISTOR	2SC2611				
Q705	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q706	8-729-326-11	TRANSISTOR	2SC2611				
	<RESISTOR>						
R701	1-202-838-00	SOLID	100K 10% 1/2W				
R702	1-216-397-11	METAL OXIDE	4.7 5% 3W F				
R703	1-202-842-11	SOLID	220K 10% 1/2W				
R704	1-202-846-00	SOLID	470K 10% 1/2W				
R705	1-202-837-00	SOLID	82K 10% 1/2W				
R706	1-202-549-00	SOLID	100 10% 1/2W				
R707	1-202-842-11	SOLID	220K 10% 1/2W				
R708	1-202-824-00	SOLID	3.3K 10% 1/2W				
R709	1-202-824-00	SOLID	3.3K 10% 1/2W				
R710	1-247-700-11	SOLID	100 5% 1/4W				
R710	1-247-700-11	SOLID	100 10% 1/4W				
R711	1-249-409-11	CARBON	220 5% 1/4W				
R712	1-249-409-11	CARBON	220 5% 1/4W				
R713	1-202-824-00	SOLID	3.3K 10% 1/2W				
R714	1-249-421-11	CARBON	2.2K 5% 1/4W				
R715	1-249-422-11	CARBON	2.7K 5% 1/4W				
R716	1-249-414-11	CARBON	560 5% 1/4W				
	<CAPACITOR>						
	*A-1394-132-A	U BOARD, COMPLETE	*****				
L701	1-408-417-00	INDUCTOR	47UH				

U

The components identified by shading and mark  are critical for safety.

Les composants identifies par une trame et une marque Δ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
Δ	1-536-591-61	BLOCK, ANTENNA (USA ONLY)	
Δ	1-536-902-21	BLOCK, ANTENNA (CND ONLY)	
Δ	1-559-396-11	CORD, POWER (USA ONLY)	
SP901	1-503-918-11	SPEAKER	
SP902	1-503-918-11	SPEAKER	
T504	Δ 1-439-372-13	TRANSFORMER ASSY, FLYBACK	
TU101	Δ 1-463-771-11	TUNER, ET (BTP-201A)	
V901	Δ 8-737-753-05	PICTURE TUBE (A68JNT50X)	

ACCESORIES AND PACKING MATERIALS

PART NO.	DESCRIPTION	REMARK
A-1470-824-A	COMMANDER ASSY (RM-757)	
1-513-379-00	CONVERTER (EAC-25) (CND ONLY)	
1-562-443-11	CONNECTOR, ANTENNA (USA ONLY)	
*4-384-027-01	BAG, PROTECTION	
*4-388-939-02	CUSHION (UPPER) (ASSY)	
*4-388-940-01	CUSHION (LOWER) (ASSY)	
*4-388-965-02	INDIVIDUAL CARTON	
4-482-537-41	MANUAL, INSTRUCTION	
4-482-537-51	MANUAL, INSTRUCTION (CND ONLY)	